EXHIBIT 13

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MONTANA
MISSOULA DIVISION

UNITED STATES OF AMERICA,

Plaintiff,

vs.

CASE NO.
CR 05-07-M-DWM

W.R. GRACE & COMPANY, HENRY A. ESCHENBACH, JACK W. WOLTER, WILLIAM J. McCAIG, ROBERT J. BETTACCHI, and ROBERT C. WALSH,

Defendants.

Missoula, Montana
Wednesday, 3.04.09
1:15 p.m.

JURY TRIAL - VOLUME 7 - AFTERNOON SESSION
PAGES 1583-1733

TRANSCRIPT OF PROCEEDINGS
BEFORE THE HONORABLE DONALD W. MOLLOY,
UNITED STATES DISTRICT JUDGE, and a jury.

Proceedings recorded by mechanical stenography and transcript produced by computer by
Julie M. Lake, RDR, RMR, CCR,
Martin-Lake & Associates, Inc.

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I N D E X

WEDNESDAY, MARCH 4, 2009

AFTERNOON SESSION

BE IT REMEMBERED that on Wednesday, March 4, 2009, at 1:15 p.m., in the Russell Smith Courthouse, Missoula, Montana, before the Honorable Donald W. Molloy, United States District Judge, the following proceedings were had:

(Whereupon, the following proceedings were held in open court with counsel present, the defendants present and the trial jury present.)

THE COURT: Mr. McLean, you are up.

DIRECT EXAMINATION (RESUMED)

BY MR. MCLEAN:

Q. Dr. Whitehouse, I would like to have you teach us a little bit if you could about the anatomy of the lung. Could you tell us the different parts of the lung and how it works?

A. I would be happy to. You should think of the lung, the actual working part of the lung, just like a bunch of grapes. You have a trachea that comes down from your mouth and it breaks into two separate main bronchi. And it keeps dividing and dividing until it gets out to what are called the alveolar sacs, and those are basically very small, microscopic, and they go all the way out to the outer surface of the lung.

The outer surface of the lung is called the pleura. There's actually two coats of pleura. There is one on the lung itself and there is one on inside the chest wall. I would make

the--or make it sound like a--maybe this doesn't sound right. If you look at a side of beef or something and you looked at the inside of the ribs, you notice that you can see the ribs real clearly, and that has a pleura, too. It's very thin. It's a very thin coating. The same coating on the outside of the lungs is present, which is also quite thin.

It allows the lung to expand; so that when you breathe in, your rib cage moves, your diaphragms, your breathing muscles move, you suck air into your lungs. And the pleura is very elastic. It just expands out and allows to get the air to go into the air sacs.

And then in the air sacs there's tissue called elastic tissue, that when you stop and you want to breathe out, that pulls the--pushes the air out. You actually don't exert much exertion to breathe out. You do when you breathe in, but not when you breathe out and for that reason, because of the elasticity of the lung.

Q. Now I would like you to describe for us your process that you use when you receive a patient, a patient presents at your office and you go about trying to make a diagnosis.

A. Okay. Well, first off when a patient comes in, they are seen by one of our medical assistants in the office. The initial data that you give to a doctor's office is done, where they live and insurance and stuff like that.

But then they go with one of the medical assistants

who starts by getting a history from them; so there is more than one history obtained on most of these patients. They ask things like their employment, their prior illnesses. Get a history of all their operations, any diseases that they have, any other health problems. What their current problems are that they are there for, what they are concerned about.

If it is an environmental or an asbestos-type problem, they get a complete history from them of where they lived, what their exposures were and try to get as thorough a history as they can. One person usually doesn't get everything, and I'll explain how we try to get past that.

Then they get their blood pressure and their pulse, and then at that point I wind up seeing them. We don't do any testing until generally after we've seen the patient. That's not necessarily true in some clinics. In the CARD even that's not necessarily true, but in my office that's how we did it.

Then I probably get the same history again. I write down a lot of notes, which I'm in the habit of doing and so that I have reference when I dictate it later on. And then I try to really focus in, particularly if it's somebody that may have an environmental--what's called a pneumoconiosis, which is inhaling of some foreign substance and it includes a lot of things other than just asbestos. Then I focus in on that and try to really narrow down what the exposure history is.

I also get a history of all their other illnesses,

how they might affect it, and do what's called a review of system where you ask about all their other medical problems, medical symptoms that they have. It takes a fair amount of time to get all that out of a patient.

And then after that's done I do an examination and I generally, on a new patient, do a pretty complete exam even though it may be just a lung problem, because all other kinds of other things tend to be part of or they add to a lung problem or add to a disability or something like that.

And following that, in general we'll get the laboratory testing that we think we need. In a chest physician's office, at a minimum it's a PA, a lateral chest x-ray. PA means from the posterior to the front. You know, you stand against the x-ray screen, when you get an x-ray it shoots from the back.

Then we'll get a complete set of pulmonary function studies, and you will see some examples I'm sure of that as we go along here as the sort of things that we do.

We may get an electrocardiogram. We may get a CAT scan, a CT scan of the chest which allows us to see detail. But I'll tell you one thing is that a CT scan and chest x-rays are complementary of each other. If you give me only one thing as far as the kind of work I do, I'll take a chest x-ray over a CT scan any day. The CT scan shows you fine detail in some areas, but it doesn't give you the overall picture of what the

lungs look like, like you get on a chest x-ray.

Then when we get done with all that stuff, then I sit down with the patient and explain what we find and go over it. And we talk about a whole bunch of things. We talk about potentially about what the implications are, what the diagnosis is or what it isn't. The prognosis, if it's something serious. Any other testings and things that we need to do.

Q. You mentioned that one of the things you do right away is obtain the patient's exposure history. Why is that important in your diagnosis?

A. Well, it's very important. I alluded to the 2004 ATS standards earlier which they put down on paper. You cannot make an asbestos-related diagnosis without an exposure history that includes what the exposure is.

It's the same way with silicosis, with various fumes like epoxy and things like that. You have to have the history of what the exposures were and there may be multiple different exposures, different places.

Q. With respect to multiple different exposures and places, how did that play into your diagnosis of asbestos-related disease?

A. Are you talking about different asbestos exposures or different exposures?

Q. Asbestos.

A. Asbestos. Well, they all add to each other. I mean, if

you are exposed in 1960 and '70 and 1980 and 1990 and 2000, ultimately all of those add sequentially to what the ultimate outcome will be of your disease. And people talk about latency is, you know, 15, 20 years in asbestos disease, but that's latency to overt disease. We see plaques as well at five years after exposure.

Q. Why don't you tell us about this latency. What do you mean?

A. Latency refers--latency is a term that was used for many years to say that, well, asbestos disease doesn't manifest itself until 15 or 20 years after the exposure to the offending agent. It's very clear that the changes of asbestos disease probably begin very shortly after asbestos is inhaled.

The first manifestation is either plaques or thickening of the pleura, pleural thickening, or thickening of that lining that I described to you. And then it goes on as basically a continuum until it develops severe disease and then it continues to progress. It never stops progressing until death, basically.

Q. Could you tell us how asbestos actually injures the lung?

A. Yes. Yes. The asbestos fiber, think about inhaling a needle. Asbestos fiber, and particularly the asbestos fibers that we're talking about here, are a thin, longer-than-wide, very needle-like object. It's actually microns or thousandths

of an inch in size, not visible to the naked eye.

When it's inhaled, it goes to the farthest reaches to the lungs, down to the small air sacs. It actually penetrates the wall of the air sacs over time and it will penetrate all the way out to the outer chest wall; so not only the lining around the lung, but the lining around the outside.

It--you can't get rid of them once they are there at that point. They create what we call an inflammatory reaction which is like--if you relate that, say, to your skin, like if you have a lot of redness in your skin because you injured it but you don't have any real bruise or cut or anything like that. That, I think, is a close approximation of inflammation.

And that progresses. It happens very slowly over a period of, you know, as long as the rest of your life, basically, and it has a variety of different manifestations. Some people react to it differently than others.

Q. And how, if at all, would repeated exposures or repeated inhalations to asbestos figure in to what you just told us about?

A. Well, basically every dose of asbestos that you get and you inhale down into your lungs is going to create more inflammation, and so it's going to add to the inflammation that's already there. It may take a while to manifest itself, but ultimately in, let's say, 30 years, if you have an exposure at zero and then 10 years and another exposure at 20 years.

You know, at 30 years or 20 years, the first one will manifest itself. At 40 years out, then the other ones are going to start to manifest it, so it's going to continue to grow in the amount of inflammatory disease that's present. It's all a continuum and it will continue because of the new stuff that was just inhaled.

Q. Do these additional and sequential or subsequent exposures have any impact on the risk of disease a patient might experience?

A. The way I guess I would answer that would be, it may make it more evident or make it obvious where it might not have been as obvious beforehand. I guess that would be the best answer I could give you.

Q. Now I would like to, with the help of some demonstrative exhibits that you put together for us, have you show the jury and describe for them these different types of diseases.

A. Okay. Can I get my list out there so I can follow along with you?

Q. Sure.

A. Okay, go ahead.

Q. And you did put these together prior to your testimony so you could talk to the jury and show them the different types of diseases?

A. I did.

Q. Do you think it would be helpful to the jury to see

these things as you describe them?
A. Absolutely.
Q. The first one I would like to direct your attention to relates to cancer. Before we look at it, could you describe for us the different types of asbestos-related diseases, including cancer?
A. Yes. Basically there are several different kinds of cancers that are known to be associated with asbestos diseases; lung cancer being the most common one. But also colon cancer and bowel cancers are known, associated with that, and probably because a lot of asbestos fibers are swallowed and they penetrate out of the gut into the area around the gut in the abdomen.

Mesothelioma, both in the chest and in the peritoneum, which is the lining of the inside of your abdomen, is seen for all intents and purposes only in people with asbestos exposure. It's a very bad cancer which is relatively untreatable. Some of the peritoneal ones have been treated, but for the most part it's considered to be a very minimal or nontreated disease, and usually people only survive about a year or two.

There are several different types of lung cancer and I won't bore you with what those are.
Q. How does the mesothelioma differ from lung cancer?
A. Well, mesothelioma starts in that lining of the lung.

It starts--and the meso comes from the kind of cells that are in the surface of the lung, mesothelial cells, and that's where the mesothelioma begins. It's actually a cancer of the pleura rather than of the lung itself, and it generally invades the chest wall and the lung directly from that pleural surface.

Q. How about lung cancer?

A. Lung cancer can start anywhere in the lung. Most of the ones that we see are what are called adenocarcinomas. They are moderately rapidly growing, but all kinds of cancers have been associated with asbestos disease.

Q. So let's look first at a slide that you've identified as relating to lung cancer. We'll look at No. 3.

A. I'm going to have to try to figure out how to make this work here.

THE COURT: It's not in evidence yet, so we need to get it in evidence before you can talk about it.

MR. MCLEAN: I didn't really want to admit it into evidence, Your Honor. Just use it for demonstrative purposes.

THE COURT: All right. If there is no objection to that, it will be used.

This evidence is simply to help you understand what the doctor is testifying about. It's not being admitted as an exhibit. It's just to illustrate what he's talking about.

MR. MCLEAN: And, Judge, we were talking before we all got together here, if there is any way we could turn down a

bank of lights on this side of the courtroom, it might help see some of these things.

THE COURT: Does that?

MR. MCLEAN: It helps a little bit. There, that looks pretty good. Thank you, Your Honor.

Q. (By Mr. McLean) All right, Dr. Whitehouse, tell us what we're looking at in this demonstrative Exhibit No. 3.

A. What I'm going to demonstrate is something that's pretty small. We're dealing with a small screen and things that you are not used to looking at. I'll do my best to make them pretty obvious to you.

This is a lung cancer of a lady that died a couple years ago. See if I can make this--

THE COURT: Pull the mike over, okay?

A. Oh, okay.

Basically what I've done is outlined--let me do that again--that hilum on the left side. Now, remember when you look at an x-ray, this is left and that's right. Don't ask me how that came about originally, but it's all that way.

And this here is a combination of a cancer and some lymph nodes from the cancer. We also have a CT scan of that.

Q. (By Mr. McLean) Let's look at that, No. 4.

A. And this is a CT scan of that.

Q. What are we looking at? First of all, when you say a CT scan, how is this depicting the human body?

A. The CT scans are really a very fine technique, one that allows us to see detail in some areas that we wouldn't see it otherwise. And basically it's like we slice you up crosswise from the trachea on down. Of course, it's done--any of you that have had a CT scan know that it's done by you are in a ring and it takes pictures sequentially that are pretty well detailed. The techniques have gotten better and better over the years.

This is a CT scan here and it's a cut that's about through the middle of the chest, right about where the trachea divides, which is somewhere about that far below the notch in your sternum. And if you look at it, this is--right there is the trachea where it divides. And then here is that cancer that I referred to. This was an inoperable cancer, and it was inoperable because it was invading into these structures right over in here.

But that's a reasonably typical picture. That's not a large cancer. That's a fairly small tumor, actually, relative to some we see.

Q. Let's next go on to an example of mesothelioma, slide No. 1.

A. This is a picture that's a mesothelioma. I know it's a mesothelioma. It was biopsy-proven by doing what's called a thoracoscopy, actually looking inside the chest. If you look on this side of the chest over here, you will see sort of a

ragged, difficult-really-to-see picture. There's nothing about a mesothelioma--or hardly anything about a mesothelioma that stands out such that you look at it and you say, oh, that's a mesothelioma. You see this sort of abnormality with some fluid which is right there (indicating). Thank you.

You will also see on this what's called a pleural plaque right here, and I'll explain about those later on. But that's one of the things that tells you that there was an asbestos exposure. This was biopsy-proven. This gentleman lived about two years.

Q. While we have this slide here, have you observed any relationship between the pleural plaques and the development of mesothelioma?

A. Not directly. Mesotheliomas that we see in Libby are all associated with some degree of pleural disease. There is an old maxim that I think is true; that is, we have a mesothelioma, you can't find the asbestos exposure, you haven't looked hard enough.

We don't have difficulty finding it because it's present in all the ones we've had in Libby and every one that I've ever seen has had some degree of pleural disease.

Q. Now I would like to have you talk about some of the noncancer asbestos-related diseases. Could you just, first of all, list those for us.

A. Well, the diseases that occur in the chest associated

with asbestos probably start with pleural plaques. A pleural plaque is a--think about maybe something like a silver dollar that's on the inside of your chest wall. They don't have to be very thick. They can be thicker than that, but pretty isolated areas of scarring in the chest wall. They may glisten. They may be sort of a lobular--lobulated. They may be calcified, and they can sometimes be quite thick.

Along with this, and I think is the talk about diffuse pleural thickening. Diffuse pleural thickening is where the lining of the lung is thickened over much of the surface of it. And, of course, it's like if you have that kind of thickening, you are no longer breathing something that looks like a balloon. It's more like an orange peel. You can't get the air in and out and that creates major physiologic abnormalities of inability to get the air in and out of your lung--or get the air in your lung. You can get it out but you can't get it in. Those are the two basic types of pleural disease.

Associated with pleural diseases are what are called a pleural effusion, where you can get a fluid in the chest. And the fluid that you get in the chest comes from these plaques which are frequently very inflammatory; and that is, they have a lot of redness, a lot of blood supply to them. And if you get fluid in your chest that does have some degree of blood in it, that's called benign asbestos pleural effusion.

It's not really so benign, but it's just labeled that.

Then another step beyond that is interstitial fibrosis, which is commonly known as asbestosis. In Selikoff's older literature he called pleural disease pleural asbestosis, and so you will hear it sort of used interchangeably. They are all part of a continuum.

Interstitial disease is a disease that occurs in that framework of the lung where you have sort of like the grape-like alveoli hanging from the stalk. And that area, and the area around the air sacs, get very scarred and fibrotic and you can see that on x-ray, and that is a progressive process and that's called asbestosis.

Those are basically the basic breakdown. There are a lot of other manifestations, some of which we'll see here when we go through other x-rays, but that's the major components of asbestos disease.

Q. So I would like to have you look at slide No. 8 which you've told me describes pleural effusions.

A. Right. This is a gentleman I know well. And now what we're going to have to do here is you are going to have to look very carefully about where the pleural thickening is. If you look--where shall we start? It's sort of funny, I was asked to find a normal film, I couldn't find one, recently.

But if you look right up here, look right here, you will see that the ribs come down. Up here, see this one rib,

how it comes up here? You don't see anything inside the rib in that area.

JUROR: We don't have a picture.

A. Do you have it now?

JUROR: Yes.

A. I'll start over again. If you look right along this area here you'll see a rib. See this rib coming down here like this along there? And in between that rib and the lung, which is this black area here, you don't see anything--you shouldn't, or very minimal--because the pleura in that area is normal.

Now we're going to go down lower, though. Go down and look--do you have this picture on here? Okay. I want you to look right here. And here you see right there, there is the rib coming down and then you see this tissue between right in there and across there--between the rib and the lung. That's pleural thickening.

And the definition of diffuse pleural thickening is a little bit--is not real clear as to how much it has to be before it's diffused, but that clearly amounts to diffuse pleural thickening.

Now, if you look down lower in this chest x-ray, you will note that this x-ray, what we call the angle over here which should be sharp, has fluid in it right in there. And that's fluid there (indicating). And over--and that's fluid in that angle and that's benign pleural diffusion.

Then on the other side you will see all this changes right here and here and here. There is pleural thickening down here. There is an angle that's lost and there is no fluid in this area. But there is also something else right here. Right above that arrow is a rim of calcification, which is calcification in an area of diffuse pleural thickening.

And then on top of it through this area, through most of this area here and in here, there is interstitial fibrosis consistent with interstitial asbestosis. So this one x-ray manifests most of the things that we see in somebody that has asbestos exposure and significant disease.

Q. Let's look at a CT scan, No. 9.

A. Do you all have that? Now, this is a CT scan and this is that right base where I showed you that it was thickened. And this is fluid. All that is fluid that's down there.

And then here you'll see something else. Right there is an area--see that white area inside the rib? Can we enlarge that area right there? There we go.

If you look, here is the rib coming down and around here. And then in here, right there--I'm not sure how to do this--right in there you see that area that's white, that's calcification. That's calcified pleural plaque. And when plaques have been present for a long time, they become calcified.

Q. All right. Let's look at No. 10.

A. These are pictures that were taken--I think it was the same fellow. These don't show very well with the light, I'm afraid. I would ask the jury whether they can see these very well or not. I can't see it very well up here.

JURY: We can see it.

A. Oh, that's much better.

THE COURT: The screens have a self timer on them so after four hours they shut down.

A. These are pictures that were taken with a thoracoscopy, which is a technique of putting a tube into the chest and look around and take biopsies. It's a good procedure because it's not like a big incision and only a day or two recovery.

This lower right-hand one, right there with the forceps, is the surgeon taking a biopsy of a pleural plaque. It's whitish material, most of the time scar. And when the pathologist looks at it, he'll call it a mass of fibrous tissues.

Q. (By Mr. McLean) Let's look at No. 11.

A. This is where he was taking a biopsy off, sort of a similar picture, tearing off a piece of the pleura for studying, for a microscopic study.

Q. So where is the plaque?

A. Well, it's all--there is plaque here, and plaque as part of this and some of this is plaque. I think most of it may be plaque. Some of this--I'm not sure what some of this is here,

maybe some fat in there or not. But these are the plaques that I'm seeing right in here and here and down in here. And this is all plaque here, this sort of bloody and inflamed.

Q. Let's look at some examples of pleural thickening. We'll go to No. 5.

A. Now we're going to get into some things that are a little bit more subtle. Can you hear me okay? Some things that are a little more subtle.

On this film here, if you look at the extreme--let's enlarge this area here. Right at this base here you will see this shadow inside the rib goes down; that's pleural thickening. It's about probably, when you measure that, it's going to be about 3 or 4 millimeters in thickness.

Q. Let's look at a CT scan, No. 6. Same patient, right?

A. Same patient, yeah. We've got two on him, I know. This one actually has some plaques. It's not as good an example of pleural thickening as the next one, but there is some pleural thickening right up in here along this here. There is also a calcified plaque right there that you can see and there is some calcium on a plaque right there.

Why don't you go on to the next film which is better for pleural thickening, probably.

Q. No. 7.

A. And this next one here, you can see an area of calcification right there. And then next to it along in here

is an area of pleural thickening. It's probably pleural thickening. This is an older scan. It's a little harder to read. The technique has gotten better.

And then this is a calcified pleural plaque up here. So as you can see, there are calcified pleural plaques that co-exist with areas of pleural thickening along with it.

Q. Last in our examples we'll try to show some interstitial disease, No. 24.

A. Do you remember when we were looking at some of the other films there, there really wasn't much in the lungs? They looked sort of like this area up here in the top, in the lungs right in here. Sort of dark but not a lot of markings in them.

When you look down here and, all of a sudden, you see all these markings. Just right here underlying the pleura. And that's called subpleural interstitial disease and that's where the interstitial disease in asbestosis begins.

I think you can see this really--this is really actually a very good demonstration of it. In all these areas here that extend out to about there, and then they're contiguous with the pleura; and we know that that pleura underneath there is inflamed and is abnormal also, even though you may not see it on the film.

Q. Have you noted during your years of treating asbestos-related diseases any progression in disease from a plaque to something worse?

A. Oh, yeah. I've got--I've had a large number of people that had plaques early in the--or in the '60s and '70s and even more recently than that, and have been able to observe them go on to severe interstitial disease and on to death.

You need to think about a plaque is the initial portion of a continuum to severe disease and death from asbestosis. Not everybody dies from a plaque, obviously a lot don't; but that is the general sequence.

Q. Did you bring some slides to demonstrate this process to the jury, as well?

A. I did.

Q. Let's look first at slide No. 12 then. What are we looking at here?

MR. BERNICK: Your Honor, at this point, there is not a 703 foundation, the opinion on progression. This case is anecdotal.

THE COURT: This is his observations. The objection is overruled. You may continue.

A. We're going to start by showing you a film that was taken in 1976 and we're going to show progression of this to the current time. This gentleman is still alive.

There are several plaques that you can see on this film I'll show you. Right there is one. There is one there. There is irregularity of the diaphragm and that's a plaque. There is a plaque right there, that line that you see that goes

down there, right in there. Plus there is some pleural thickening in here.

But I want to show you what happens to a sequence of films that show mostly plaques. Go ahead, next one.

Q. Go ahead.

A. Is that it? This is a hard film to look at. These were done professionally so I can't even take the blame for them.

But right in here is a pleural plaque. And you see the rib right down there, I'm marking the rib, and then this area from here and here to here comes, and that is a pleural plaque. I'm going to show you what happens to this with time.

So No. 14. Now, this gentleman--this is in 1990. On this particular film you will now start to see more pleural thickening along this sidewall here. It's become very evident. There is the initial onset of some interstitial disease right here. There is some on this side, too. But I'm showing you this one because we want to show right where that plaque was, what's happening to that particular area. Next slide.

And this is on the other side which demonstrates to you fairly clearly what interstitial disease looks like when you get it blown up pretty good. This area in here is interstitial disease--interstitial asbestosis. Next slide.

Well, this is--that's the last 1990 one. This is sort of a blowup of--sort of an overpenetrated view of showing the pleural thickening all the way down here from where that

plaque was, which is now expanded over how many interspaces, six interspaces in the chest wall. That's the six ribs.

Next one. Now we start to see what I would call rapid progression, which is another phenomenon that we observed here in Libby. Now you can see a tremendous amount of interstitial disease here and the scarring has come all the way down around the bottom here so that he's lost the angle in the lung that was there previously. In addition, there is more interstitial disease over here on this side as well. The next slide.

Probably shouldn't have shown this. This is a lousy slide, I'm sorry. But you can see that the angle is blunted down here. It's really hard to see. Let's go on to the next one. The plain films show them better.

Now, here we are a year later and this has gotten much worse on this side. This is getting worse here. It's much worse in this area.

And then the last one is a 2006 film, which shows continued ongoing progression. This gentleman has been on oxygen for a couple years now and is very limited in what he can do and has what we consider a severe disease. That's basically from a plaque to this point in about 30 years.

Q. You mentioned earlier, but I would like to ask you for some more details, about whether any of your patients with asbestos-related disease have actually passed away from their

asbestos-related disease.
A. Large numbers. In the CARD Clinic alone we've had 116 deaths from asbestos disease, of which 79 of them are pleural--or are interstitial asbestosis or pleural disease and the balance of them are lung cancers. And that's in a period of less than eight years.
Q. Have you observed any mesothelioma deaths in your patients?
A. Yeah. In fact, I've just written up a number of those. Those weren't all my patients but I've seen probably, personally, about half a dozen mesotheliomas. The only one I'd ever seen prior to about 1990 was one in the '80s I saw. There may have been one in the '70s. It's a very rare cancer ordinarily.
Q. And based on your knowledge of those patients who died from mesothelioma and their exposure history from their records, can you tell us if any of those patients that died from mesothelioma were entirely environmental exposures?
A. Most of them were. The ones that I've seen and the ones that were in that paper that I recently published were almost all environmental exposures. I think one of them had done some construction work that he thought might have had some asbestos, but that wasn't sure either. It was reported as being asbestos because those were predominantly environmental exposures.
Q. Are you familiar with the patient, Mrs. Gerard?

A. I am.
Q. How are you familiar with her situation?
A. Well, she came to see me 2000 or 2001, sometime in that range, because she had been diagnosed with a peritoneal mesothelioma.
Q. How about Darlene Riley?
A. I saw her in about 1996. She was a Libby resident that had a mesothelioma.
Q. And so they would be included in your description of environmental mesos?
A. These were both included, yes.
Q. How about respiratory failure? Have any of your patients with asbestos-related disease passed away from that?
A. In the past, quite a number of them. When I was still practicing in Spokane, probably at least a half a dozen personally that I took care of.
Q. What does that entail? What is respiratory failure? Let's put it that way.
A. What happens with asbestos disease is that your lungs get more and more restricted in their size and their volume to the point where you get more and more short of breath, requiring oxygen. Some of the people that have died I can recall that their vital capacity, which is one of the major volumes that you look at, get down around 30 to 35 percent of predicted.

It's--you know, basically it's like having somebody put a strap around your chest and then tighten it as much as you can and then having to breathe. If you've ever done that, then you realize how short of breath you can get. And you are short of breath all the time. And it progresses to more and more requirement for oxygen. And then ultimately to increase in the waste scale of the carbon dioxide. And these people are generally wheelchair bound. Most of the time don't really wind up in the hospital because there's not a whole lot you can do for them that you can't do at home.

Q. Have you made an effort to count up the number of Libby-related mesothelioma deaths?

A. Yes, I have. Between--

MR. BERNICK: Excuse me. Objection, lack of foundation under Rule 703.

THE COURT: Sustained.

Q. (By Mr. McLean) How did you go about making a count? Don't tell us what it is.

A. I took all the cases that we knew about that were environmental in the CARD Clinic --

Q. So that means--

A. -- as part of it. That's only part of it.

Q. So you surveyed the CARD Clinic records?

A. Well, yeah, we surveyed the CARD Clinic records and we got word of mouth of people who had died, some in Spokane and

other places. Then we tracked down the death certificates and path reports, talked to their practicing physician.

Q. So you actually tracked down death certificates?

A. Yes.

Q. And you said something about path reports. What is that?

A. Those are the biopsy reports of the mesothelioma. They are good for diagnosis.

Q. How did you determine they were Libby related?

A. We got histories from the families. A lot of them died in Libby and lived in Libby, were lifelong residents. And then other ones we would get a history of their exposure in Libby and made sure that we would get as reliable a history of the exposures as we could.

I mean, there were people that just vacationed in Libby or worked part-time in Libby for a short while that wound up with mesotheliomas with no other exposure.

Q. So what was the number that you counted based on this collection of records and assessment that you did?

A. That was the 11 that was in that recent paper. That's not all the cases, though, in Libby, obviously.

Q. What's the number for all the cases?

A. Between 31 and 33. 31 are documented. There are a couple other ones that aren't documented, but we will document.

MR. BERNICK: Your Honor, I don't believe there was

a proper foundation under 703 for that.

THE COURT: Sustained.

Q. (By Mr. McLean) You mentioned that there were 11 in your recent paper, but what I would like you to do is tell us about those persons listed in your paper and the types of exposures that you documented for them.

A. I can do that. Carol Gerard, for one example, worked, I believe it was, at a chiropractor's office up on 37th, and miners would come in there after work with their dusty clothes to get their back fixed or whatever the case was. And that was her exposure pretty much for major asbestos exposure, besides living in Libby.

Tony Riley had some family members that worked for Grace that she had some exposure to, along with just living in Libby.

The one gentleman that fished on the Kootenai on a fairly regular summer basis, I don't have the other data with me right here, but it was over about a 10-year period of time, had a mesothelioma.

We have a lady who is still alive who lives outside of Libby a ways and came to Libby, probably still does because she's still alive, every once or twice a week to do her shopping. And that was her only exposure that we could determine. So we have a variety of them.

Q. Do you have your paper there with you?

A. Yeah, I do.
Q. I just wanted to ask you questions about a few particular patients.
A. Okay. Okay.
Q. I would like you to just refresh your recollection there if you need to--or if not, that you don't--and ask you about this case No. 2 and about the exposure time period for that patient listed in your paper.
A. Uh-huh.
Q. What was it?
A. I'm sorry, would you repeat the question?
Q. Case No. 2, the exposure time period?
A. Was 1971 to 1985, a 17-year exposure history.
Q. What was the nature of the exposure?
A. That was the one that I described to you; that was Gerard.
Q. And how about case No. 3, what was the exposure time period for that patient?
A. 1980 to 1986.
Q. And what was the nature of the exposure?
A. He just lived there for a period of time.
MR. BERNICK: Your Honor, at this point I think this is really going to a different proffer which goes beyond the science--
THE COURT: It is. Sustained.

Q. (By Mr. McLean) Now I would like to change topics, Dr. Whitehouse.
A. Okay.
Q. And we'll direct your attention to that time period in 1999, late 1999. Do you recall receiving a call or a visit from members of the EPA during that time period?
A. Yes, I do.
Q. How did that come about?
A. Well, there was the article in the Seattle PI, was in the paper. And I think that Aubrey Miller and Dan Middleton and Mike Spence were there. And I think as Aubrey relates it, he thought I was a crackpot but he had to go find out for himself. So he showed up in my office with the other gentlemen and we had discussion about this and I showed him some x-rays and things at the time.
Q. Who was Aubrey Miller?
A. Aubrey Miller is an EPA--I'm not sure whether--he's from Denver. At the time he was from Denver. He was--I guess you might call him an investigator for environmental disasters. I'm not sure what his official title is.
Q. You mentioned some other people who came to your office then. Who were they?
A. Well, I think--I'm trying to remember if they arrived--I know Mike Spence was there.
Q. Who is Mike Spence?

A. Mike ultimately became--I'm not sure whether he was the epidemiologist or whether he worked for the State of Montana. And I haven't seen him or heard from him for a long time so I don't know what he does. But at the time I think he was involved with the State of Montana.

I'm not sure whether Dan Middleton was there or not. Dan was there later because we wrote a paper about these environmental exposures, but he might not have been there. My recollection is really hazy on that one.

Q. What was Miller asking you about?

A. Well, first off he wanted to know--

MR. BERNICK: All of this is hearsay. I object. It's all hearsay.

THE COURT: Sustained.

Q. (By Mr. McLean) What sort of information did you pass on to Dr. Miller?

A. Well, basically passed on to him what I had seen in my practice for the last couple of years in particular and demonstrated to him the kind of asbestos changes that I was seeing, which were different than the usual commercial asbestos changes. Showed him a number of x-rays. And we just had a discussion about it, that--I don't know, it didn't last a long time. It was right in the middle of office hours and I probably didn't even give him a whole lot of time at the time, I suspect.

Q. Did you later become involved in the medical screening program that was developed for Libby?
A. Well, tangentially. I started going up to--well, no, not tangentially.
MR. BERNICK: Object. Asks for a yes-or-no answer.
THE COURT: Sustained.
You just answer it yes or no.
A. Oh. Yes.
Q. (By Mr. McLean) And what was your involvement in the medical screening program for Libby?
MR. BERNICK: Objection, Court's ruled on this.
THE COURT: Well, answer the question carefully. Overrule your objection.
"What was your involvement in the medical screening program for Libby?"
A. I was invited to a meeting in Cincinnati to work out the details of how the screening would function.
Q. (By Mr. McLean) About when did that happen?
A. That happened in 2000. Probably in the summer of 2000, I would guess.
Q. Tell us about that group of people. Who was present? Just if you can recall.
A. Aubrey Miller was there.
MR. BERNICK: This is really--it's irrelevant and it violates the Court's order.

THE COURT: Sustained.

Q. (By Mr. McLean) Now, I think you told us early in your testimony that you just recently retired from the practice of medicine, right?

A. Well, I retired from the active practice in my office practice, although I'm still working at Libby.

Q. And so what are the nature of your responsibilities in Libby even today?

A. Oh, basically two. I go up there once a month and see patients and do consultations. And then recently we've--in order to sort of cut down on my driving back and forth, I now have x-ray from the Kalispell x-ray site that I have at home so I can pull up the films and we can discuss cases over the phone.

Q. And based on that experience there in Libby, can you tell us whether or not there are any new patients walking in the door with asbestos-related disease?

A. There are.

Q. And how often do you see a new patient with asbestos-related disease at the CARD Clinic in Libby?

MR. BERNICK: Objection, 703. This is all anecdotal.

THE COURT: Overruled.

A. Probably--I don't know the exact number, but I would guess it's probably close to one a week.

Q. (By Mr. McLean) One a week?
A. Yup.
Q. Now I would like to ask you some questions about particular patients. First I'm going to ask you questions about Lerah Parker. Is she one of your patients?
A. She is.
Q. And can you tell us how she came to be one of your patients?
A. I've got notes on all these people, if you don't mind my getting those out. Excuse me, I think I lost it in my briefcase.

The patients that I see in the clinic are basically--a lot of it is random, in that there are three of us there: Dr. Black, Dr. Heppe and myself. And my responsibility actually was to train Dr. Heppe.

And so we see people on a rotating basis. And there are some people that I've known for a long time that I see regularly once a year and a lot of them, it's either a new case or it's somebody that's been followed up. Sometimes it's a consultation.

Q. I should have asked you this right away, but what is the CARD Clinic?
A. CARD is the Center For Asbestos-Related Diseases in Libby.
Q. When did you first see Mrs. Parker?

A. From my notations, I noted here that I saw her in 2001.
Q. And have you diagnosed her with an asbestos-related disease?
A. Yes. More recently about 2005.
Q. What was your diagnosis?
A. She has some pleural plaques and she has asbestos pleural disease.
Q. We would like to have you show that to the jury in slide No. 54. Would that assist your description of Mrs. Parker's diagnosis?
A. Yes.
MR. MCLEAN: Your Honor, I would use this slide simply for demonstrative purposes.
THE COURT: Any objection?
MR. BERNICK: I don't see it.
THE COURT: I don't either.
A. Can we blow that up?
Q. (By Mr. McLean) Wait a minute, wait a minute.
MR. BERNICK: Can we ask when it was taken? Which exam?
THE COURT: Do you know when it was taken?
A. Yes. This was taken in 2005, I believe.
THE COURT: 2005.
MR. BERNICK: If that is in fact--the witness sounded a little tentative. If that's the date, that's fine,

we would not have an objection for demonstrative purposes.

THE COURT: All right. Again this is just for demonstrative purposes. It's not going to go into the jury room. It's received, assuming the date is 2005.

A. Could I add, Your Honor, that all the stuff I'm going to show you here in x-rays from here on out is from this recent time frame.

THE COURT: All right. Mr. McLean.

Q. (By Mr. McLean) What are we looking at here in the top frame of slide 54?

A. These arrows that are on this CT scan are not arrows that I put on those. They are put on by the radiologist.

Q. What was his name?

A. Dr. Becker.

Q. All right.

A. And up in the--where you see this arrow here, there are two rather faint early calcified pleural plaques. You see one here, if you can see that well enough. They are not easy to see. There is one there and one there. And those are typical relatively early pleural plaques.

If you will go down now to the lower cut there also, this I believe--well, I'll forget about this. I'm wondering, I think it's probably some calcification but I can't prove it. Let's go back up to the upper one again.

This is not an unusual presentation. Now, that is a

prone image where she's lying on her stomach, so this is in the back part of her chest. It's in the left-hand side.

Q. Have you seen Mrs. Parker more recent than 2005?

A. Yeah, I saw her about--probably about 6, 8 weeks ago.

Q. Can you tell us whether these conditions are progressing?

A. Yeah, she has a new plaque at this point in time. She's got one on the right side, which there is also a small plaque in the posterior left chest. We had a new CT scan and some of this has happened so recently I don't have the new copy on here.

Q. Let's go next to Mel Parker. Is he one of the persons that you've been examining for some time?

A. Yes.

Q. When did you first see Mr. Mel Parker?

A. I saw Mel, I think, about the same time that I saw his wife. I think in 2001 also. I can't be absolutely certain about that.

Q. Have you diagnosed Mr. Mel Parker with an asbestos-related disease?

A. Well, he had had--not until 2007. Basically, he had a pretty normal CT scan and chest x-ray all along there and I hadn't been able to see anything and we were continuing to do screening on him and we generally get CT scans every three years. So we got a new CT scan on him.

Q. When was that?
A. In '07.
Q. Have you, with that in hand, diagnosed with him asbestos-related disease?
A. I have.
Q. What is that?
A. It's a pleural plaque also.
Q. And did you bring along a slide so we could show the jury in a demonstrative manner what you are talking about?
A. Yes. Could you show that slide?
Q. It should be No. 64.
A. This is going to be a little harder to see because this is on PowerPoint. Can you enlarge these upper two? Now, along--I have to apologize for these because these were ones that I took off my cell phone and PowerPoint on these subtle plaques are hard to see. But there are plaques right here just on the inside. It's somewhat faint. And there is another one over here in the same. I didn't put these arrows here. They were put by the radiologist. There are not a lot, but they are there.
Q. Who was the radiologist for this slide?
A. Becker.
Q. Where does he work?
A. At St. John's Hospital in Libby.
Q. Let's look at No. 65. Is this Mel Parker, as well?

A. Yes. And this one you can see the plaque right here, right there. I don't know how to make that work. Oh, darn it.

Right here you can see this shadow that pops up right around here, right in that area there, and that's a pleural plaque on the right chest wall.

Q. Next I would like to go to a person named Mel Burnett. Are you familiar with Mel Burnett as a patient at the CARD Clinic?

A. I am.

Q. And when was he first seen at the CARD Clinic?

A. He was seen after the original screenings, I believe. I saw him with the original screenings and I saw him again in 2005.

Q. Have you diagnosed Mr. Mel Burnett with an asbestos-related disease?

A. I have.

Q. What is it?

A. It's pleural disease also.

Q. Did you bring along some slides to demonstrate for the jury your diagnosis?

A. Yes, sir, I do, in slide 60.

Q. When was this taken?

A. This was taken in '05.

Q. Let's show slide 60.

MR. BERNICK: These are all for demonstrative

purposes?

THE COURT: Yes, they are.

MR. BERNICK: Thank you.

THE COURT: They will not go to the jury. If I can't get the screen on, they won't see it.

A. This film is actually very difficult to read as far as any significant disease--

THE COURT: You need to speak into the mike, Doc.

A. Oh, I'm sorry. This is kind of hard to see. I'm going to have to--there is a plaque called an en face plaque. What you've been seeing is plaques alongside the chest wall. You sort of look through them tangentially. But when there is one that's a straight-on plaque, sometimes it's hard to see it. And some of those are very obvious when they get calcified, some of them are difficult to see.

Right here, you see right there is an en face plaque. They are common and they are not really any different than other plaques, except they look different. Sometimes they look rather dramatic in their extent. Do you want to show the CT?

Q. (By Mr. McLean) Yes, sir.

THE COURT: Slide number?

MR. MCLEAN: 61.

A. I guess this is large enough. Along this whole chest wall here, you see this line inside the rib all the way from

there, all the way down to there, that's pleural thickening. That's pretty much confined to the one chest wall in this view.

There is probably a little bit up here and some irregularity right there, but I don't know if that's going to turn out to be something in the future or not.

And we've got another CT scan also. Is this the other one?

Q. This is slide 62.

A. Let's enlarge this area right in here. And here you can see another good demonstration of pleural thickening along the chest wall. This is probably 3, 4 millimeters at least. It's magnified here but it's probably 3, 4 millimeters. But it follows this contour.

And then right here--we can go back to the other view--this is some subpleural fibrosis right in this area right there, and that's ultimately going to be interstitial lung disease.

Q. Next I would like to ask you about Wendy Challinor. Is she a patient at the CARD Clinic?

A. She is.

Q. When did you first see her, Wendy Challinor, at the CARD Clinic?

A. I saw her first in 2001.

Q. Have you diagnosed Ms. Challinor with an asbestos-related disease?

A. Yes. She has interstitial asbestos disease.
Q. Did you bring some slides along to demonstrate your diagnosis to the jury?
A. We did.
Q. I would like to use for demonstrative purposes first slide No. 21. Can you tell us when this slide was taken?
A. This was taken on 7-24-03. This film--look, can we just enlarge the whole film a little bit? It might help. There we go.

This film shows rather minimal interstitial disease at that time down here, and it's in the lower lungs where it usually is. It's a little bit difficult because breast shadows over-lie the lower chest and so it gives you some haziness already there and so you sometimes can't be sure right away. Sometimes you have to follow things in order to be sure. In this case I had read this as minimal interstitial disease at the time.

If you would give me the next slide.

Q. That would be No. 22.
A. That's dated 12 of '05 and there is a marked difference. If you look here now, there is a great deal of interstitial disease. It's become sort of consolidated, which means it's sort of coalesced together to make a whiter shadow here on both sides, and that's progressed quite a bit in that period of time.

Q. I think we have another slide, No. 23.
A. Oh, yeah, here's the lung--here's the one that shows you what subpleural fibrosis looks like. On this film not only does she have a pleural plaque there--somehow you are supposed to make this to an arrow. I don't think I know how to do it.
THE COURT: Just touch it.
A. There is a plaque there and a plaque there. But then all along here she has marked subpleural, and not only subpleural but interstitial fibrosis, up into the central portion of her chest.
Wendy's on continuous oxygen, although I have to yell at her to get her to take it sometimes, but she does have very bad pulmonary functions. And I believe you have that here, too, don't you?
Q. We do, but first I want you to describe to the jury, when you say pulmonary functions, what are you talking about?
A. Well, pulmonary functions are one of the ways we assess the degree of abnormality that someone has related to their respiratory disease, and there are basically three parts to it.
First part is what's called a forced lung capacity in which you have the patient take as deep a breath as possible and blow out maximally and record that.
And then off of that you get two numbers that are important: One is called the vital capacity or forced vital capacity and the abbreviation is FVC. And the other is the

volume that comes out in the first second which is called the FEV1, forced expiratory volume at 1 second. That's the first part. We also give people a bronchodilator and repeat those things.

Second thing we do are called lung volumes, and they are done with what's called a total body plethysmograph.

Q. Wow.

THE COURT: Again, if you would use the total body microphone there.

A. My apologies. It's basically a box that's contained and it's totally enclosed and then you have the patient breathing in and out and you close a shutter. It's a complicated arrangement, but basically you know what Boyle's law is.

Q. I don't know what Boyle's law is.

A. Well, you know pressures on both sides and the volume on one side, you can calculate the volume on the other which is the lung volume.

Q. All right.

A. And we're lucky. We used to do that by hand. Now it's done by computer, because it takes hours to do it otherwise.

And then the third part is what is known as the diffusion capacity. Basically you have a patient breathe in a gas mixture that has 1/10th percent carbon monoxide in it and a tracer gas of methane. They take that in and they hold their breath for at least six seconds and then blow it out.

Well, what happens is all the methane comes out and so you can measure how much the methane is diluted, but none of it gets absorbed.

But carbon monoxide has a total affinity for the red blood cell, so that a certain amount of that carbon monoxide they breathe in is picked up by the red blood cell and so then you can measure the difference in how much carbon monoxide comes out versus how much methane comes out. And you get from that what's called the diffusion capacity, which is the uptake of carbon monoxide in millimeters per minute per millimeter of mercury. It's a test that we use to test for the ability of the air sacs to pick up oxygen adequately or the lung to pick it up. And it's particularly useful in interstitial lung disease and it's very useful in Libby.

Q. And so now with respect to Ms. Challinor, did you take those kind of measurements?

A. I did.

Q. I think they are depicted in slide 45 that we'll offer for demonstrative purposes.

A. So I'll run through this. To begin with, you can ignore everything from here on down, all these. Chest doctors hate all this. This is stuff that doesn't really give you very much.

But these top two, the FVC here--this one and this one. The FVC and FEV1 are the two numbers that are really

important and if I had my way, that's the only thing we would ever publish because they are the only ones we really use. They give you a vital capacity and it gives you a predicted number and an actual number and then the change with the bronchodilator.

These predicted numbers, there is a variety of normal predictors that are used, that have been used for many years for all of these that were done on large population groups. And the reason being, that you have to have predicteds for one is it's affected by sex, race, height and age. And it's all downhill after age 21 and it keeps declining and your lung function is half at age 80 where it was when you were 21. That's a rough guess. So you have to have those numbers in order to calculate what it is relative to the predicted. Plus or minus 20 percent is considered the normal range.

So she had a vital capacity in this one--I forgot the date on this. I can look it up. It's 79 percent with a 72 percent FEV1. That's sort of about par for asbestos that doesn't have severe restrictive disease. Can you open this up again?

Now, you go down here to the lung volumes. Lung volumes are basically normal. We really only look at two: The residual volume and the total lung capacity. I'm not very good at this, am I? The RV here, across there, and the total lung capacity below. Her RV on this is slightly high, but the RVs

are very difficult to do and you tend to get a lot of variation in them. Total lung capacity is not so. They tend to be more stable. Go back to the big one again.

And the last one is the diffusion capacity and these also have standards, and hers was 42 percent predicted. This range in the 40 to 50 percent predicted for a long time, and that correlates very well with interstitial lung disease and is the reason why she's on oxygen.

Q. 42 percent of predicted. What do you mean?

A. Well, it means the predicted number is 22.77 and she was 9.63; and that's severely abnormal and that correlates very well with her--

Q. Let's talk next about Jeff Regh. Has he been seen as a patient at the CARD Clinic?

A. I'm sorry, what did you say?

Q. Jeff Regh, R-E-G-H, has he been seen as a patient at the CARD Clinic?

A. Oh, yes, he has.

Q. When did you first see Jeff Regh?

A. 2001.

Q. Do you have a birth date or an age for him?

A. 43. That's current age is 43.

Q. Have you diagnosed Mr. Jeff Regh with an asbestos-related lung disease?

A. I have.

Q. What is that?
A. He has pleural disease on his left side predominantly.
Q. Did you bring along some slides to demonstrate for the jury your diagnosis?
A. I did.
Q. With that purpose in mind, we'll show you slide No. 46.
A. Okay, may I describe more about his history with this?
Q. Sure.
A. It's germane. Presented in my office with severe pleurisy on the left side and developed fluid on that left side, and had had a significant exposure in Libby and on the dam to asbestos disease. It didn't really clear up with medication with steroids, so we scheduled him for a thoracoscopy to look at it, to biopsy the area. I was concerned about it.

And as I have wanted to do for years and so we don't make a mistake in the operating room, I got.

COURT REPORTER: I can't hear you.

A. Oh. We took another film in the operating room right beforehand and it had disappeared, so we never did get a thoracoscopy. But then over a period of time, actually rather slowly, and this x-ray was taken in '05, he's developed extensive pleural thickening along this entire left side here. You can see it right there just inside the ribs. And then this angle down here, which is where the original fluid was, has

been scarred and blunted.
Q. You have a CT scan, I believe, slide 48.
A. We do. And here's the CT scan that demonstrates it, and also calcified pleural plaque up here. It's got a little bit of pleural thickening over here and probably a small plaque there and those are what tell us for sure that this was asbestos-related. That it was a benign asbestos pleural effusion, in all likelihood.
Q. Do you have an opinion as to what the future holds for the further production of asbestos-related diseases there at the Libby CARD Clinic?
A. Well, we seem to be--
MR. BERNICK: Your Honor, before he answers, I think that calls for a yes-or-no answer.
THE COURT: It does. Yes or no.
A. Yes.
MR. BERNICK: There was no--I'm sorry. Next question.
Q. (By Mr. McLean) Do you anticipate seeing new cases into the future?
A. Yes.
MR. BERNICK: Objection. Lack of foundation, 703.
THE COURT: Overruled.
A. Yes.
Q. (By Mr. McLean) How long into the future?

MR. BERNICK: Same objection. Lack of foundation under 703.

THE COURT: Overruled.

A. The answer is yes.

Mr. Bernick, when he stands up, is obscured and I can't always see him when he stands up, which is why I answer before he gets to say--I mean, he's right behind Mr. McLean.

Q. (By Mr. McLean) So that's why you answer too fast?

A. Yeah, I did.

Q. So the answer was yes.

A. Repeat the question again. I want to make sure I got that right.

THE COURT: "So the answer was yes."

"So the question was how long into the future?" There was an objection. "The answer is yes." That was the end of the questions.

Q. (By Mr. McLean) So how long into the future do you see new cases of asbestos-related disease presenting at Libby?

MR. BERNICK: Same objection, Your Honor, lack of expert foundation.

THE COURT: Sustained--overruled.

A. And this is basically an estimate. Knowing that the latency period is at minimum 15 and probably 30 years before we see very much, I don't think we'll see the last of these prior to 2030, maybe even longer than that.

Q. (By Mr. McLean) Now, you have actually testified as an expert witness in some personal injury cases, right?
A. I have.
Q. And as I understand it, you've testified in a case where Ms. Carol Graham--
MR. KRAKOFF: Objection, Your Honor, relevance.
THE COURT: Sustained.
MR. MCLEAN: Could I have one moment, Your Honor?
THE COURT: You certainly may.
MR. MCLEAN: Thank you, sir.
Q. (By Mr. McLean) Dr. Whitehouse, I think early on in your testimony this afternoon you described that mesothelioma is actually a rare cancer.
A. Yes.
Q. Yet you did testify to finding 11 cases from environmental exposures at Libby, right?
A. Yes.
Q. And you did testify to a larger number of mesothelioma cases based on your survey, right?
A. Yes.
Q. And since mesothelioma is a rare disease, how do those numbers strike you?
MR. BERNICK: Objection. Rule 703.
THE COURT: Overruled.
A. You want to know, you know, where all the numbers come

from, basically?

Q. (By Mr. McLean) No. How do they strike you? Since it's rare and you've got 20 or so--

A. Oh, okay. Well, we're in an area where there is a huge asbestos exposure and we have in Libby the highest mesothelioma rate in the nation and it's strictly because of the fact there is so much asbestos floating around, or whatever term you want to use. There is so much asbestos in Libby, that it's throughout the entire community, as well as in several industrial areas.

MR. BERNICK: Objection, move to strike under Rule 703.

THE COURT: Sustained. Would you disregard the last answer.

Q. (By Mr. McLean) How does that--how do the numbers of mesothelioma that you testified about at Libby compare to the other areas that you've practiced in where your patients have come from?

MR. BERNICK: Same objection, 702 and 703.

THE COURT: Overruled.

A. Well, when I was in practice in Spokane I could only recall one mesothelioma that I saw in the '80s. And I think my partner had one in the '70s that I was involved with in his care. But it would have been a rare day when mesothelioma was seen in an area that did not have a lot of asbestos.

MR. MCLEAN: That's all I have.

Thank you, Your Honor.

THE COURT: All right, Mr. Bernick.

MR. BERNICK: Your Honor, if I could have a few minutes to set up.

THE COURT: Are we going to--what are you asking?

MR. BERNICK: I'm asking if it would be possible to take a break now and then I'll be able to go straight through, if that's convenient for the Court and for the jury, so I can set up a couple of easels and proceed. Whatever Your Honor finds to be best for the jury.

THE COURT: All right. There are some other issues that have come up and so what we're going to do is take the afternoon recess.

We'll be in recess for 15 minutes. We'll be back in at five minutes to 3:00 and then we are going to go through to the end of the day. Hopefully we'll finish with Dr. Whitehouse's examination. If we don't, we'll get close. So we'll be in recess. Don't discuss the case among yourselves during the break.

(Whereupon, court was in recess at 2:39 p.m., reconvened at 2:55 p.m.)

THE COURT: We'll have cross now by Mr. Bernick and if you leave the podium--I'm not sure who's in charge here, Mr. Bernick.

MR. BERNICK: I'm sorry?

THE COURT: I'm not sure who's in charge here. I said I wanted you to use that lectern, but I see you will be wandering around the courtroom.

MR. BERNICK: Just a little bit, and I appreciate the flexibility and I hope the jury can hear.

CROSS-EXAMINATION

BY MR. BERNICK:

Q. Good afternoon, Dr. Whitehouse. Good afternoon, ladies and gentlemen.

I want to change what I had planned to do completely and just talk about your clinical practice principally, because I think that that's really what you testified to in principal part is your clinical practice.

The jury is becoming used to timelines in this case and--because it's important to the case. So I'm going to ask you some historical questions and pretty much proceed in sequence. I hope that that introduction helps out a little bit.

So is it true that in your clinical practice or during the course of your clinical practice you developed a relationship with a civil plaintiff's lawyer named Heberling back in--

MR. MCLEAN: Objection, relevance.

THE COURT: Sustained.

Q. (By Mr. Bernick) Have you, Dr. Whitehouse, received compensation in connection with your clinical practice as a result of your litigation work?

MR. MCLEAN: Same objection, Your Honor.

THE COURT: Overruled.

A. I get paid fees for my time in doing expert work, yes.

Q. (By Mr. Bernick) That's fair. Nobody is taking issue with the right of people to bring lawsuits; that's not the purpose.

So, Dr. Whitehouse, for how long have you been receiving fees for expert work in connection with your examination of people living in Libby?

A. Well, I had one case that was--that dates back to 1989 and then probably nothing after that until, I don't know, mid '90s. I don't know the exact date.

Q. Well, it's not a big deal. I just want to get a point of reference there.

Would it be fair to say that since the mid 1990s you've done significant--you've received significant compensation in connection with your expert work?

A. That is true.

Q. Okay. Is that on a fairly continuous basis, say from 1995 going forward to 2004?

A. No. It's up and down.

Q. Okay. So kind of--I'll make dashes--it's kind of

sporadic?
A. That's correct.
Q. Okay, that's fine. Now, in connection with your clinical work--that's really what I want to talk about here is your clinical work.
When you saw people who had exposures at Libby during the 1980s and 1990s, could you tell me whether those were principally people who had exposure as a result of working at the mine or as a result of living with somebody that worked at the mine?
A. With one exception, yes, they were.
Q. So if we take the period of time--let's take it all the way up until 1995, right here. We'll draw it all the way up 1995.
That's the point where, as you know, I think you probably know, Grace pretty much finished up with the reclamation work and was no longer present in Libby. Is that about right?
A. I'm not sure of that date, but I'll take your word for it.
Q. Okay. Would it be fair to say that prior to 1995 you had had extensive contact with people in Libby as your patients?
A. Yeah, and they were predominantly miners.
Q. And as a result, would it be fair to say that you had

developed an important relationship as a doctor who diagnosed people who had sustained injuries in Libby during this period of time?

A. Would you repeat that?

Q. Fair to say that you had developed a significant relationship with many people in Libby? You had a tie to the Town of Libby because you were involved in providing diagnosis and medical advice to people who were hurt as a result of exposures at Libby. Would that be fair?

A. That's true.

Q. Okay. And it was an important relationship to you, was it not?

A. Well, I guess it was important like any relationship with referring physicians.

Q. Okay, fair enough. And certainly if you had felt that there was an impending--an impending onslaught of disease that was associated not with the mine but with simply living in the Libby area, you would have told somebody about that. Correct?

A. What time frame are you talking about?

Q. Prior to 1995.

A. I think it probably depends a lot as to whether I knew that Grace knew about it or not, because it's Grace's responsibility, not necessarily mine. I might or I might not. I don't know. That's very hypothetical.

Q. Okay. Well, let's make it factual. I'm not asking

about Grace's responsibility. The jury is going to determine Grace's responsibility here. I'm asking just about your own relationship with the town factually.

Prior to 1995--or as of 1995 if you had felt that there was an impending onslaught of environmental, that's purely community exposure disease, you certainly would have told somebody about it, correct?

A. Well, I would have been talking to the family doctors there. There's no question about that, as the doctors referred these patients and most of the time I spoke with them on the phone as well.

Q. Right. Would it be fair to say that prior to 1995 when it came to what I'll call community cases, and by that I mean, if we can have an understanding, cases where there's no connection with the mine, that people who got sick didn't work there and didn't live with somebody who did. Do we have that understanding?

A. Well, I'm not sure exactly when I started to see the environmental cases. I do not know the answer to that. I don't think it was '95. I think it was--it might have been one or two, but the majority were after 1998.

Q. Yes. That's what I'm getting to and I'll refresh your recollection. You've testified about this. There is no trick here. I'm just picking out 1995 for reasons that are important to the case, maybe not important to you as a doctor.

A. Okay.
Q. Go back to 1995. Is it true that as of 1995 you did not have--there were no community cases that you had diagnosed. Do you recall?
A. I don't recall any. There might have been a sporadic one but not enough to get my attention, however.
Q. And as a result, you weren't broadcasting any message to doctors or anything. You weren't broadcasting any message that said, whoa, we're going to have a problem with community disease. Is that fair?
A. That's fair.
Q. In fact, would it be fair to say that as of 1995 you did not foresee community cases being diagnosed in the future.
A. I think that's fair. I did not foresee the epidemic we've had, no.
Q. Right. Would it be fair to say that the very first cases that were reported, community cases that were reported of any consequence, were in about 1998, 1999? Does that basically comport with your recollection?
A. I think that's reasonable.
Q. Okay. Now, I also want to go back during the same period of time to a separate question. This is community cases. And I want to talk about something else which is--and if you can't see at any point, we'll move it over so you can. Are you having any trouble seeing it?

A. Yeah.
Q. Okay, I'll move it over.
A. The gal's head is in the way.
Q. It's slung low so that I can deal with it.
I want to talk about something else before 1999, which is pleural disease, pleural plaques. You talked about those in your direct examination, correct?
A. Yes.
Q. Isn't it true that prior to 1999 you thought that pleural plaques were not a progressive disease?
A. I'm not sure exactly when; but, yeah, you are right. Prior to that time I did not realize what was going to happen to those people.
Q. Not progressive disease, okay.
A. I would give you a caveat on that, though. There were some people that I had seen that started with plaques, but they were miners and had developed fairly significant disease.
Q. Fair enough.
But at that time, and we can go through, and letter after letter and when you gave testimony, it was your statement as a doctor, both under oath and to your patients, that if all they had was pleural plaques and they were asymptomatic, you did not think it was a problem in the future. You didn't say that they were going to have a progressive disease. True?
A. That's true. And I developed my thoughts about that

sometime in that time after that. Yeah, you are correct.
Q. Okay. I want to now pinpoint that time because I don't think it's going to be very hard for us to do that. You are smiling already because--
A. I think it's going to be very hard, but we'll try.
Q. Don't worry, don't worry. Okay.
Did a time come--we know that the jury has heard testimony that as of 1999 there was a bunch of publicity. Do you recall that?
A. Oh, yes.
Q. Oh, yes. Used to have the--
A. How could I miss it.
Q. Yeah. We have the writer back there in the back. Is Mr. Heberling also back in the courtroom? He was here this morning. I don't see him today.
You've been talking with Mr. Heberling, the lawyer, in the back of the courtroom during the course of this morning, correct?
A. No. Well, not really. We had breakfast, but I really haven't had any conversations with him since.
Q. I thought I saw him this morning. I guess I wasn't too far off.
Let's talk about, then, you did make reference to screening, a screening program that was done by the ATSDR. Do you recall that?

A. Well, I was going to--yeah, you mean, as far as the creation of it?
Q. You can't tell me anything about it except that it took place.
A. Oh, yeah, it took place. Yeah.
Q. During what period of time did it take place?
A. In 2000.
Q. Would it refresh your recollection if I told you it went from November of 2000 to July of 2001? Is that about right?
A. Well, that's about right, but I thought you were referring to when the meetings occurred that set it up.
Q. No. I'm just talking about the program itself. It ran for a period of time; is that about right?
A. That's probably right.
Q. So we'll just take and we'll put a big vertical--set of vertical lines for when the screening program took place. Is that about right?
A. Reasonable.
Q. Okay. Now we're at the key point. Is it true that after that program came into place you saw coming in the door--I'll make it red--you saw coming in the door a huge influx of people who wanted to know whether they had a problem?
A. That's right.
Q. And would it be fair to say that these were overwhelmingly not miners or their families. These were people

who said that their only exposure was community.
A. I don't think it's fair to say that. I think it was--at that point in time there were certainly a certain number of community members, but there were also a lot of family members that came in then and, in fact, I think the predominant number was family. But I don't recall that. I don't keep those kind of statistics in my practice.
Q. Okay. I thought that's what you had been asked this morning, but that's my error not yours. So don't worry about it.
The point is that there's a whole bunch of--a lot of community people came in, people who didn't have occupational exposure and who didn't live in the household, true?
A. Well, that's true. And to clarify that prior statement, is by the time 2004-2005 occurred, then it was a predominance of community members. But what was coming in there was sort of a little different mix initially.
Q. Okay, well, that's fair and let me just ask you. You used a figure like 1,800, which is a lot of people, right?
A. That's the number that I am told when I asked.
Q. Right. And of the 1,800 people would it be fair to say that the overwhelming proportion of those people are people who don't have a tie to the mine or didn't live with somebody who had a tie to the mine?
A. Yeah, no, it's over 50 percent. Yes.

Q. Now, within that group of people you talked this morning and this afternoon about some mesothelioma cases, right?
A. Right.
Q. And I think you talked about a total of about ten of them, right?
A. I have 11 in that paper.
Q. 11. So we have a very, very small number of the community people, the hundreds of people that come in, very, very small number of mesothelioma folks. Correct?
A. Oh, yes, that is. That is a small number relatively.
Q. I'm going to put that down, 11 meso.

Now, to pick up over here. Pleural plaques, which you've previously said were not progressive, tell me if I'm wrong. But were the overwhelming, the dominant presentation that people who came in from the community had, was that they had pleural plaques.

A. No.
Q. What was it?
A. It was a mixture of everything. And there were people with diffuse pleural thickening and probably more with diffuse pleural thickening than with just isolated plaques.
Q. Well, all the people you talked about, Mel Parker, Lerah Parker, they are both pleural plaque folks?
A. No, not necessarily. They have got some areas of pleural thickening in here that don't qualify as plaques. Not

Lerah, but certainly Mel.

Q. Well, the idea that people with pleural plaques--let me just ask you. Did it become your view beginning in approximately 2002 that pleural plaques, pleural disease, was progressive?

A. Probably a little earlier than that. Some of it started out because of some people that were actually a lot closer that I knew well for a long time that were developing disease. And I think I developed my thoughts about that probably right around 2000.

Q. Well--

A. I don't know for sure. You know, I'm not--I'm a practicing physician. I don't keep track of that sort of thing very often. It's sort of what is, is.

Q. Yeah, I understand that, but we have a slightly different purpose here and that's why I want to pursue it a little bit.

Do you recall giving your deposition in connection with--in 2007 and being asked for your opinions in this case?

A. Yes.

Q. Okay.

A. That was the bankruptcy.

Q. Well, that was actually--this is in the cost recovery case. Do you recall that? Do you recall being deposed in the cost recovery case?

A. I don't recall anything by that name. You'll have to refresh my memory. Everything I've done was either from a bankruptcy or an individual's--

MR. BERNICK: Your Honor, could you give a limiting instruction--

A. Maybe it is a cost recovery case, for all I know.

Q. (By Mr. Bernick) That's my point. Do you recall being deposed in 2002 in a piece of litigation that I'll tell you it was the cost recovery case?

A. In 2002?

Q. Yes.

A. I have no recollection of it.

Q. I want to show you--

MR. BERNICK: Is this on the system, T.J.?

MR. LOEBBAKA: Which one is it?

MR. BERNICK: It's 2002--September of 2002. It's actually Page 202.

Q. (By Mr. Bernick) I'll represent to you that this deposition was taken in September of 2002.

A. Would you tell me who it was? It might refresh my memory who did the deposition.

Q. Well, I don't have that on this page. I'm sure it was some lawyer for Grace.

Showing you this, do you recall being asked these questions and giving these answers as you see them before you

regarding that you didn't use to think that plaque was a disease?

MR. MCLEAN: I object. This is not proper impeachment.

MR. BERNICK: It's not designed to be impeachment. It's to be used to refresh his recollection.

THE COURT: Overruled. Go ahead.

A. What's the question?

Q. (By Mr. Bernick) Did you read the part that's highlighted?

A. Let me go ahead and read that.

MR. MCLEAN: Your Honor, the jury is seeing this. It's not in evidence.

THE COURT: It's sworn testimony. Whenever either of you have used sworn testimony for the purposes of whatever use you are making of it, the jury sees it.

MR. MCLEAN: Thank you, Your Honor.

Q. (By Mr. Bernick) Maybe this will refresh your recollection. We'll show you the first page.

A. What I've said there doesn't contradict anything I've said to you earlier. It's maybe a year later, but it doesn't change anything.

Q. I'm not trying to contradict you, Dr. Whitehouse. I'm just trying to get the sequence down.

A. Basically the sequence that I wrote here was that

obviously I was in the middle of throes of changing my mind about it, because I said I didn't used to think that a plaque was a disease. I'm not so sure about that anymore.

Q. Right.

MR. BERNICK: T.J., could you show him the first page.

Q. (By Mr. Bernick) Do you see the first page of this deposition that was taken *United States of America vs. Grace?* It's a cost recovery case, September 6, 2002, in Spokane.

A. Go down further on that.

Q. You want to go down further?

A. I don't know, I don't have any real significant recollection. I'm sorry, I don't have significant recollection of it. I'm sure you are right, though, if it's a deposition of me.

Q. This took place in 2002. All I want to get at is beginning in about 2002 you developed--you changed your views with respect to pleural plaques, and now you said it "equals a progressive disease." Right?

A. That's correct.

Q. And that's what you testified to this morning in court, correct?

A. That's correct.

Q. That people that have pleural plaques, and you showed it, that they are a progressive disease and it can be quick and

it's a disease process. Do you recall that?
A. I do, and I have no reason to change my opinion on that either.
Q. Well, I want to ask you some questions about both of these things; that is, pleural plaques being a progressive disease and whether these 11 mesos are caused by Libby community exposures.
Those are the two things I want to ask you about, whether these community--got a big influx of people coming out of the community saying they have community exposures, they are worried, the publicity is there, the screening is there, they are worried and they want an answer, and some of them have meso and a lot of them have pleural disease. I want to focus on two questions.
Your basis for saying the mesos are caused by exposure just in the town and when; and your statement that pleural disease, pleural plaques, are a progressive disease. After I'm done asking about those questions, I'm going to sit down. Okay?
A. Okay.
Q. First with respect to the pleural disease. In fact, what you've done with pleural disease is that you've been very diligent and you've diagnosed Mel Parker as having pleural plaques, Lerah Parker as having pleural plaques, and Ms. Challinor as having pleural plaques. Correct?

A. And interstitial disease.
Q. And interstitial disease. So we've got three different people that you specifically featured as falling into this category. Correct?
A. Well, Wendy Challinor doesn't really quite fall under that category. She's got rapidly progressive interstitial disease.
Second thing I would say about that is Mel has developed his plaques under my nose and Lerah has developed another abnormality under my nose, so there has been progression in the number of plaques that we see radiographically in the last three years.
Q. But the question is whether it's a progressive disease. Whether because people have--before, you said--you said back, but long ago, that pleural plaques are asymptomatic. They can change and you can develop them over time. But just because you have pleural plaques doesn't mean, doesn't mean that you are going to have a progressive disease. That was what everybody was saying at the time. Correct?
A. Well, everybody was saying that, you are right.
Q. I'm sorry?
A. Everyone was. In fact, it was in the literature and it was not really until 2004 that the ATS basically said otherwise.
Q. Right.

A. I had said so prior to that time, you might note, from my experience.
Q. Sure, that's fine. So we're clear and the jury can understand a little bit of what we're going back and forth about. Historically for many, many years in the literature, and in your letters to patients, you would say you've got a pleural plaque but you don't seem to have any symptoms. And just because you have a pleural plaque doesn't mean that you are going to progress and get sick. Fair?
A. That's true. That's fair.
Q. And you started to change your mind, you say, before the ATS in 2004. You started to change your mind about that in 2002 or thereabouts.
A. Yeah, that's fair enough.
Q. Okay. And so having changed your mind, you now are very focused on people's pleural plaques because you say once you've got it, it is going to progress. Right? That's what you are saying now.
A. I never say it's going to progress 100 percent. I said I say there's a high likelihood it's going to progress.
Q. So we have Mr. Parker, and I want to show you Exhibit 6232. Do you see that?
A. Yes.
Q. Is that a reference in the CARD Clinic records to Mr. Parker?

A. That's an interpretation of the x-rays.

MR. BERNICK: I'd offer it.

THE COURT: What is it? 6232?

MR. BERNICK: 6232.

THE COURT: Any objection?

MR. MCLEAN: Completeness. We need the whole chart.

MR. BERNICK: Well, if it turns out we need the whole chart, then I'll put the whole chart in. I don't think we're going to need the whole chart.

THE COURT: It will be admitted over the objection of the United States.

EXHIBITS:

(Defendants' Exhibit No. 6232 received into evidence.)

Q. (By Mr. Bernick) Do see this is a note, this 6232, a note for a visit of Mel Parker that took place on or about August of '07?

A. You've got something else or just that?

Q. That's where we're beginning and I'll ask you another question.

A. Yeah, roughly about that time. Yeah.

Q. And do you see that what you go on to say, "This chest x-ray now shows what appears to be a plaque adjacent on the lateral chest wall at the level of the right hilum. This is consistent with an asbestos pleural plaque."

Do you see that?

A. That's correct.
Q. Is it true that literally on the same day Mr. Parker went to see another doctor for the same purpose?
A. I'm not sure whether it was in the clinic or who's the other doctor? You need to tell me that.
Q. Let's show you Exhibit 6234.
A. That's the radiologist at the hospital.
Q. That's the radiologist at the hospital. And the radiologist at the hospital, St. John's Lutheran Hospital, was a Dr. Stephen Becker, correct?
A. That's correct.
Q. Do you see that he speaks to the same issue, as well?
A. He does, but he also read the CT.
Q. Hang on. Do you see that he speaks to the same issue?
A. I guess you might say that from the wording of it.
Q. Yeah, he does.

MR. BERNICK: We would offer that 6234.

THE COURT: Any objection?

MR. MCLEAN: No, Your Honor.

THE COURT: It will be received.

EXHIBITS:

(Defendants' Exhibit No. 6234 received into evidence.)

Q. (By Mr. Bernick) Do you see, we're now showing it, he now sees a Dr. Becker, and Dr. Becker does the review and he finds no obvious pleural thickening or plaquing is noted. And

then the impression is, "No obvious evidence to suggest previous asbestos exposure." Do you see that?
A. I see that. But you imply that he saw Dr. Becker. He did not see Dr. Becker.
Q. No, I'm sorry. I didn't mean to say that at all.
I'm saying his records were--Dr. Becker took a look at the materials as well, correct?
A. He looked at the x-ray alone.
Q. He looked at the x-ray alone. And he reaches a different conclusion, correct?
A. That's correct.
Q. Now, is it true that if we go to the American Thoracic Society today, it will tell us that there are no objective standards for judging the content of a CT scan. Is that true?
A. No, that's not entirely true. There are lots of objective things concerning a CT scan.
Q. No objective standard or rating scale for CT scans. Correct?
A. For pleural disease or for overall?
Q. For pleural plaques.
A. I guess you might say that; although, there are certain things that are used in common, no question about that.
Q. That's not my question. If we go to take a look at x-rays, there are standards and there are rating scales for determining whether an x-ray shows fibrosis, correct?

A. Yes.
Q. No two x-rays--there are protocols for multiple reviews for x-rays for purposes of seeing if there is unanimity on the x-rays, correct?
A. The purpose--you are talking about B-readers?
Q. Yes.
A. Those are an epidemiological tool.
Q. Well, they are also a diagnostic tool, are they not?
A. They are not. And they are not intended to be used that way and they should not be used that way.
Q. Fair enough. So you don't think it's a good idea for doctors to go and get a second B-reader to see if there is an agreement clinically?
A. But, you know, the second opinion in this particular case is the CT scan, isn't it?
Q. Well, the second opinion is also a doctor taking a look at the x-rays, is it not?
A. It is and it is not. You know, I look at tons of x-rays that have pleural disease and I have a higher rate of being--of being correct on this than Dr. Becker does, and I can prove it.
Q. Well, you didn't present any of that evidence here this morning, did you?
A. No, but it may turn up.
Q. It may turn up, but we're here to talk about what we know today. And what we know today is if you take a look at

the authoritative scientific literature coming out of the American Thoracic Society, it doesn't say CT scans replace B-readers, does it?

A. I don't think they even address that issue at all.

Q. It doesn't say that CT scans replace x-ray reading, does it?

A. No, but it does say some things about using them in conjunction.

Q. Fair enough. I'm not quarreling with that proposition.

Let's take a look at another one, Exhibit 6233.

Now, this is yet another record, now dated August 13th, for Mr. Parker, right?

A. That's correct.

MR. BERNICK: We would offer it, Your Honor.

THE COURT: Any objection?

MR. MCLEAN: No, Your Honor.

THE COURT: It will be received.

EXHIBITS:

(Defendants' Exhibit No. 6233 received into evidence.)

Q. (By Mr. Bernick) Now, this is kind of an interesting one, if we take a look. It's a little bit later. And now this is by Dr. Becker again, is it not?

A. That is correct.

Q. Now, if we take a look at the Impression here, he's got a CT scan, right?

A. He does.
Q. So we now have x-rays, we have CT scans. And what does Dr. Becker say about his impression?
A. He says there are some subtle pleural based changes that may or may not be due to previous asbestos exposure. Everything he reads is subtle.
Q. I'm not going to get into your views of Dr. Becker because it's not really--
A. No, I'm not giving you my views of Becker. He uses that word for practically every single asbestos film.
Q. And you are going to demonstrate that here today?
A. Perhaps in the future. I can't demonstrate--
Q. Do you think Dr. Becker is not being truthful when he says it's subtle?
A. No, I'm not saying he's not being truthful. He's actually a pretty good reader, but we do disagree sometimes.
Q. That's my whole point.
A. He's also the one who put the arrows on that CT scan next to the pleural thickening.
Q. There is no question it's something worth noting. He notes it here.
But would you agree with me, you just said that Dr. Becker is--I don't know exactly what your word was--he's a skilled and competent reader, correct? May not be as good as you, Dr. Whitehouse, but he's a skilled and competent reader,

right?
A. In general, yes.
Q. And you and Dr. Becker had a difference of view on exactly what to say about Mr. Parker. True?
A. Basically looking at this--
Q. Could you just answer the--
A. Well, I'm not so--there is no yes or no on that.
Q. That's fine. And would you agree--are you saying--are you saying he's being unreasonable?
A. Is what?
Q. Is he being unreasonable when he says what he says about Mr. Parker?
A. No, he's not at all. In fact, he reads the same thing that I do. It's just the way his wording is. It's no different.
Q. So there is a reasonable difference of view about how to describe Mr. Parker's condition. You say it's pleural disease associated with asbestos. He says it may or may not be due to previous asbestos. Fair?
A. You know, what you are trying to--what you are doing is you are making something--you are--let's see, how shall I describe this?
The diagnosis of asbestos disease is made on a whole series of things the ATS put out. He does not make the diagnosis of asbestos disease by reading the film. He points

out, in the abnormality here, that may or may not be due to asbestos and I could agree with him on that. I don't disagree with him.

Q. Okay, okay.

A. On the other hand, though, knowing what I know and about exposure histories and everything else, I can come to a much firmer conclusion than he ever could.

Q. Do you know exactly the fiber level to which Mr. Parker was exposed?

A. It doesn't have anything to do with that. It's the fact that I know he has a big exposure.

Q. You know he's had an exposure. And just because he's had an exposure you take the same images, the same CT images, and you say it is asbestos exposure. He's not prepared to say it is asbestos exposure. Fair?

A. But on the other hand--

Q. Is that--is that--

A. No, that is not a fair interpretation of this at all, no.

What you are trying to do--

Q. Dr. Whitehouse, I'm not--you know, the jury will judge what I'm trying to do. All I can do with you on the stand is elicit testimony and all I'm asking is a real simple question. I'm not asking whether you are right or Dr. Becker's right. You didn't hear me fighting with your qualifications to talk

about your diagnosis. I'm not doing that. That's not--our position is not going to turn on whether you are a good doctor or not.

I'm simply pointing out that when it comes to some of these conditions, reasonable minds--including Mr. Parker's condition--reasonable minds can differ at least about how to read that CT scan. Fair?

A. That's fair.

Q. Okay. Let's talk about Lerah Parker. Lerah Parker came in for pleural plaques and she basically came in on--I think on the same day that you went to see--you went in for the second--or the second read was done. I want to show you 6339, if I could.

Do you see that document and is that a note that you have for her visit?

A. Yes, it is.

MR. BERNICK: We offer it.

THE COURT: Any objection?

MR. MCLEAN: No, Your Honor.

THE COURT: 6339 is received.

EXHIBITS:

(Defendants' Exhibit No. 6339 received into evidence.)

Q. (By Mr. Bernick) Do you see where it says, Dr. Whitehouse, "Lerah came back in for follow-up of her pleural plaque disease"?

A. Yes.
Q. And you review the history, et cetera, et cetera, saying that the plaque is clearly visible. Do you see, third sentence, "There are no new problems otherwise, there are no symptoms." Do you see that?
A. Yes.
Q. And I think that's all that's there. She's otherwise normal, right?
A. Pretty much so. She coughs, that's about it.
Q. And her lung function is normal?
A. You'll have to show it to me, but I believe it is.
Q. Now, this jury, I'll tell you, with respect to this case, has gotten a lot of guidance on times of exposure.
Is it true that in the case of Lerah Parker--the Parkers moved onto their property at the screening plant in about the same period of time, 1994-1995. Are you familiar with that?
A. Yes, I am.
Q. But is it true that actually Lerah Parker had exposures before that time?
A. She did. Excuse me, I'll get to the microphone. She did have.
Q. When it comes to Lerah Parker's exposures, you tell me how far back her exposures go. She's got a diagnosis in '07. How far back do her exposures go?

A. I'm not sure I can recall the exact year, but I think it's into the--it's probably another ten years at least, probably.
Q. And she actually says, this is 6351, that she played in the piles, the vermiculite piles. Correct?
A. I don't recall that, I'm sorry. That one I don't recall. But I do know that she worked for St. Regis.
Q. Could you take a look at 6351 and I ask you whether this is an exposure questionnaire for Lerah Parker.
A. Yeah, I see that. Played in the piles herself.
Q. Played in the piles herself. So that's something that took place before she was at the screening plant, right?
A. Oh, yes.
Q. Okay. So when we talk about Lerah Parker's pleural plaque, we're not talking about something that you know arose because she was at the screening plant. You could be talking about something that was an exposure many years before that's not related to the screening plant. True?
A. She did have that exposure, no question.
Q. Let's talk about Ms. Challinor. That's another person that you specifically referenced, correct?
A. Yes.
Q. Ms. Challinor also saw not just you but other doctors, true?
A. I think she's seen all of us in the clinic and I think

she's got a doctor in Kalispell as well.
Q. Did she go to the National Jewish Hospital to see a Dr. Lynch?
A. No, she didn't go there. Dr. Lynch was one of the readers for the screening studies early on.
Q. I want to show you 6206 and ask whether this is a document related to Ms. Challinor.
A. Yeah, I seen that before.
MR. BERNICK: Offer it, Your Honor.
THE COURT: Any objection?
MR. MCLEAN: No, Your Honor.
THE COURT: 6206 is in without objection.
EXHIBITS:
(Defendants' Exhibit No. 6206 received into evidence.)
Q. (By Mr. Bernick) You see that this is Wendy Challinor. The date of the scan--she has a high resolution chest CT and the date of the scan is December 5 of 2005?
A. That's correct.
Q. And the jury will recall Ms. Challinor. She came here to testify. Remember, she walks with a cane?
A. I know Wendy extremely well. Seen her many times.
Q. And she has other health issues, does she not?
A. Although I think her lungs are the predominant one.
Q. Do you see where it says under the Impression--now we've got a high resolution CT scan. Impression. First of all,

there is CT evidence of pleural disease. And he goes on to say "which may be asbestos-related or could be related to old trauma." Do you see that?

A. I see it.

Q. It says, "There is CT evidence of interstitial lung disease. While this could be asbestos-related, it could also be related to cigarette smoking."

She's a smoker, is she not?

A. Yeah, she is.

Q. Again, I'm not asking whether you think that Dr. Lynch is right or you think that Dr. Lynch is wrong; but certainly the opinion that he expressed in this note regarding her CT scan is different from yours. Correct?

A. Well, yes, it is. Actually, Lynch is a very good radiologist and we rely on him a lot. But, you know, these interpretations that the radiologists do, and I know that you may disagree with me on this, but these are sort of the cover your--cover-your-rear-type readings --

Q. I see.

A. -- because of the fact that doctors get sued. I've seen this sort of--all the time, you know, the alternative readings.

Q. So he's lying?

A. No, he's not lying at all. Absolutely not. I guess it could be due to that rib fracture, but my job is to put the whole thing together.

Q. I see. And you are not concerned about malpractice.
A. About the what?
Q. You are not concerned about malpractice.
A. Not particularly. No, not really.
Q. You don't think that Dr. Lynch was calling it straight because you think that Dr. Lynch is worried about malpractice?
A. No, I didn't--I don't want you to put it that way.
What I'm saying is that radiologists frequently read things with a lot of other alternatives in them, and they do that just because of the fact that they want to make sure that they--they don't know who is going to read this and they want to make sure that maybe they cover other possibilities that are not necessarily the obvious one. She's got a rib fracture, so they are going to put that in there.
Q. You know that personally is true of Dr. Lynch, that he's a guy who kind of waffles because he doesn't really want to commit himself?
A. He sometimes does but not very often. Not very often.
Q. So he is--you would say that Dr. Lynch, you can pretty much count on him to tell it straight, true?
A. That's true.
Q. Okay. You have no reason to say that in his mind at this time--that's an important thing, Dr. Whitehouse, it's a very serious matter. Dr. Lynch wrote the words down here. They are part of Ms. Parker's--Ms. Challinor's record and they

read out and you don't know factually that he is not acting in good faith, do you?

A. No, I don't. Although I do know one thing about cigarette smoking, it doesn't produce a picture like this.

Q. I see. Let's talk about--Dr. Becker also looked at Ms. Challinor's x-rays, correct?

A. That is correct.

Q. And Dr. Becker's read is at 6201, correct?

A. I'm not sure when it is.

Q. Well, I'll show it to you.

MR. BERNICK: We offer it, 6201.

THE COURT: Any objection?

MR. MCLEAN: Have you seen this before?

A. I have not seen this film, no. At least I don't believe I have.

MR. MCLEAN: Foundation.

THE COURT: Overruled. It's in over the objection of the United States.

EXHIBITS:

(Defendants' Exhibit No. 6201 received into evidence.)

Q. (By Mr. Bernick) Again we have him looking at the x-rays. This is now on November the 8th. These x-rays were ordered by Dr. Heppe. Dr. Heppe, I guess, decided not to have you read them and decided to have Dr. Becker read them, right?

A. No, that's not how we do it. Dr. Becker is the hospital

radiologist. He's required by regulation to read all these, and I generally over-read not all of the films, but a large percentage of them.

Q. And his conclusion was, of Ms. Challinor, "no obvious evidence to suggest previous asbestos exposure." Correct?

A. Correct. Except, if you look at the second line down, "some mildly prominent interstitial markings in the lower lobes."

Q. If you read the rest of the sentence, Dr. Whitehouse, what does he say?

A. He says it's a nonspecific finding. But the reason he says that is the fact that that is indeed true. Asbestos is a clinical diagnosis made upon all the elements that go into it. And so he can't basically say there's interstitial disease that's obviously asbestosis.

Q. That's another really important point. Pleural plaques can be caused by things other than asbestos. True?

A. Very, very rarely.

Q. Interstitial markings can be caused by things other than asbestos, correct?

A. That's correct.

Q. Okay. So when somebody says that the finding of interstitial markings is nonspecific, that can be a very accurate statement, correct?

A. Nothing wrong with it.

Q. So, again, are you an expert in Ms. Challinor's exposure to asbestos?
A. Well, on her exposure alone?
Q. On her exposure, you can't measure--there are people who are expert in measuring exposures, correct?
A. No, I can't. All I know is it was enough.
Q. Well, that presumes the judgment that the findings are in fact related to the asbestos, correct? That presumes that judgment, correct?
A. That's why I'm a pulmonologist and look at all the factors.
Q. I understand, but this jury has got to judge things not just on the basis of people's judgments but on the basis of the evidence. And the fact of the matter is that you do not have expertise sufficient to tell this jury exactly what Wendy Challinor's exposure was, correct?
A. No. I can tell you where she was and the kind of things she did, but that doesn't tell you or me how much.
Q. That's exactly right. When it comes to the findings you do have the expertise to say that they can be caused by something else. True or not?
A. I do.
Q. What Dr. Becker is saying is, on the basis of all of this, he's making a judgment that he's not necessarily prepared to say that the readings are caused by asbestos. That's his

judgment, right?
A. Well, I'm not sure that I would even say that.
Q. That's what he says?
A. He says nonspecific finding. But you have to realize that he's also reading for Dr. Heppe who is a general internist, who is actually getting awfully good at looking at this sort of stuff and taking care of these sort of people. Maybe that's the reason he put that.
Q. We're not here to draw inferences and say maybes. He's expressing, in fact, in writing a different judgment from your own. Correct?
A. I don't know. I don't think it's a different judgment.
Q. You believe he's being--
A. I really don't think it is at all. Not in the least.
Q. Do you believe that he's being unreasonable as a doctor in saying what he said?
A. No. Different people use different language and that's all this is all about is different language. It has nothing to do with anything else.
Q. It's different judgments about how to--how to take the reading and express it, correct?
A. It's how he expresses it, okay? It's not necessarily about what's there or what's not there.
Q. "No obvious evidence" suggests that he's got doubt about whether there was a previous asbestos exposure that caused

this, correct? He's got some doubts.
A. He should have some doubts. He doesn't have the information about it.
Q. And his doubt about whether there is, in fact, an asbestos connection is not an unreasonable doubt, is it?
A. No, it's something that shouldn't even be in there in the first place because he's not in a position to make that judgment.
Q. And you are not--
A. He just needs to read the x-ray.
Q. And you are not in a position to make a judgment about how significant her exposure was, correct? You don't know how much it was.
A. I know that it was enough to give her disease. You don't have all the other information, all the physical exam findings, the oxygen, the pulmonary functions, the series of x-rays. In fact, the plaques on that were only seen on the CT. They weren't seen on plain film very well at all.
Q. But Dr. Lynch had all that. Dr. Lynch had all that and he says he's not convinced either, correct?
A. I don't think that anything that Dr. Lynch said, he wasn't convinced. He doesn't--he should not be convinced. He needs to read the film, okay? The radiologists read the films. They don't make--they should not in this circumstance make diagnoses.

Q. But his impression is those may or may not be asbestos-related. Those are his words?
A. Those are his words.
Q. And those are not unreasonable words for him to use, correct?
A. No, there's nothing wrong with that, but that's not wherein the diagnosis lies, okay?
You are trying to make these guys out to be the diagnostician, and Greg Black and Mark Heppe and myself and a bunch of other pulmonologists all over the Inland Northwest make these diagnoses based on all the factors, and a lot of them don't even bother looking at the x-rays--or the x-ray interpretation.
Q. Sometimes you don't look at them?
A. I look at them.
Q. You look at them because you want to make an informed judgment, correct?
A. I make an informed judgment. You know, if he said this was due to Bubonic plague, I would still make the same judgment.
Q. Okay, so let's now go on and talk about your theory that there's progression. Your new idea that pleural plaques--we've now gone through some of the medical records to see that sometimes people differ in looking at the x-rays. Fair?
A. That's fair.

Q. Okay. And so now I want to go through your theory or your new idea. I'm being totally respectful. It's a new idea. Our case doesn't turn on whether it's a correct idea. It's a new idea.

And I want to ask you whether, in fact, your new idea regarding this being a progressive disease has been accepted within the medical community.

A. It's been accepted in the literature as well by numerous authors that asbestosis is a progressive disease.

Q. Not asbestosis. I want to take off the table interstitial disease. Let's deal with some definitions first. I want you to take a look at the American Thoracic Society document, Exhibit 6015.

A. I'm quite familiar with it.

Q. Okay. And that's an authoritative document from the American Thoracic Society, correct?

A. It's a good document.

Q. It's a what?

A. It's a good document.

Q. It's a good document. And the American Thoracic Society is an authoritative medical organization when it comes to asbestos-related illnesses in particular, correct?

A. I would agree with that.

MR. BERNICK: We offer it, Your Honor, Exhibit 6015.

THE COURT: Any objection?

MR. MCLEAN: No, Your Honor.

THE COURT: It's received under the provisions of 803(18), which means it's not going to the jury.

MR. BERNICK: I understand that, Your Honor. I understand that.

EXHIBITS:

(Defendants' Exhibit No. 6015 received into evidence.)

Q. (By Mr. Bernick) Let's take a look at nonmalignant disease, 6015.7. Are you with me?

A. I'm with you.

Q. Nonmalignant disease, right there. And I want to talk about asbestosis. People have come in here, people who were exposed or believe that they were exposed, perhaps were exposed, and they have said, *Dr. Whitehouse says I have asbestosis*. They use the word. Okay?

Can we go to the American Thoracic Society standard and find a definition of asbestosis.

A. Yeah, I can read that, and I can also give you some other information over and beyond that if you want it.

Q. We've had a nice dialogue. I'm concerned about how much time I have. I want to direct your attention--I'll ask you very focused questions at this point, if that's all right, Dr. Whitehouse.

Do you see how under that very first paragraph there is a definition of asbestosis?

A. That's correct.

MR. BERNICK: Would you highlight the first sentence, please.

A. What did you say?

Q. (By Mr. Bernick) I'm just talking to our able operator here.

Do you see where the definition of asbestosis through the American Thoracic Society talks about interstitial findings?

A. Yes.

Q. And, in particular, fibrosis, right?

A. That's correct.

Q. And interstitial fibrosis you showed on the x-rays, that's that kind of cobwebby-looking shadow, that's the best I can describe it, in the field of the lungs; is that correct?

A. Yeah, more or less.

Q. So you said the cluster of grapes--I'm sorry.

A. That's correct. Now we know what you are talking about and I think the jury does.

Q. Okay. Well, I'm happy if they do.

So we've got this web-like looking--those are fibers that go into the--among the spaces. Interstitial means within the space, correct?

A. Well, it's within the interstitium, basically, but the interstitium is the--

Q. Space?
A. No. The interstitium is actually what the grapes are hanging on and that's the area that gets fibrotic. Between the alveoli I guess, too.
Q. We've got the fibers and that's in the meat of the lung, correct?
A. Yes.
Q. The plaques are in the pleurum of the lung, correct?
A. Correct.
Q. The pleurum of the lung is different from the meat of the lung, correct?
A. Yes.
Q. Basic anatomy, you've got the lung and you've got a sac that surrounds the lung. And the meat of the lung is here and the sac is the pleurum, correct?
A. Yes.
Q. And the fibrosis that the ATS says that's asbestos, the fibrosis is here, the plaques are here. Right?
A. That's correct.
Q. So they say that asbestos specifically refers--take this one here at the top of the next paragraph--to interstitial fibrosis caused by the deposition of asbestos fibers in the lung. Do you see that?
A. Yes.
Q. Now, Mr. Parker does not have interstitial problems,

findings, correct?
A. No, he does not at this point.
Q. Mrs. Parker does not have interstitial findings, correct?
A. Correct.
Q. They have pleural findings, right?
A. That's right.
Q. And under this definition out of the ATS, their pleural findings would not constitute asbestosis under this definition. True or not?
A. Under the definition there. But there is--
Q. That's my question to you.
A. I'll answer your question, except that you are not giving me the opportunity to tell you how the term was used by Selikoff.
Q. Dr. Selikoff wrote his landmark paper in 1964, correct?
A. I know--
Q. And he wrote in '64, '68, '72, and he passed away before this standard was published, true?
A. True, except that he used the term pleural asbestosis for years.
Q. Excuse me. Just answer the question, Dr. Whitehouse.
Dr. Selikoff's work was ancient history. Very important work.
A. Oh, no, it was not ancient history. I would differ with

you on that.

Q. His work--I'm sorry, I'll let you talk. I'm just anxious to proceed, but if you could just focus on my question.

Dr. Selikoff's work was well known to the American Thoracic Society at the time that they made this definition?

A. That's correct.

Q. So with the benefit of Dr. Selikoff and all of that work, they decided to define asbestosis in a way that would not include Ms. Parker or Mr. Parker--or Ms. or Mr. Parker, correct?

A. That's true. I--never mind.

Q. Thank you. And you'll have a chance, the prosecution will be able to ask you questions.

Now, is it also true--well, let's take a look at clinical diagnosis. It's 6015.10. Clinical diagnosis, right here. Could you just show that for us, please.

Asbestosis is asbestos-induced pulmonary parenchymal fibrosis with or without pleural thickening. Correct?

A. Correct.

Q. Now let's talk about the presence of plaque, plaques. And what I want to know is whether the ATS specifically addresses the question of whether plaques are a progressive disease.

Does the ATS specifically address the question of whether pleural plaques are a progressive disease or not?

A. I don't believe they do.
Q. I direct your attention to the bottom of Page 6015.15. Do you see on 6015 at the bottom we have a paragraph that deals with plaques?
A. I see that.
Q. Now, let's focus on this pretty carefully, if we could just highlight it. Just that one paragraph. Right there. Just the whole paragraph. Just get it right out there.
The presence of plaques--and just blow it up--is associated with a greater risk of mesothelioma and of lung cancer compared with subjects with comparable histories of asbestos exposure who do not have plaques. This is thought to be due to greater exposure or retained body burden, not malignant generation (sic). Do you see that?
A. Yes.
Q. That means if you've got plaque, it means you have higher exposure than somebody who does not have a plaque, right? Right?
If you have a plaque, Dr. Whitehouse, if you have a plaque, it means you have a higher exposure than somebody without a plaque. Right?
A. Not necessarily, and I think there is two parts to that answer. The first part is that we're not dealing with chrysotile, which is what this is written about.
Q. Dr. Whitehouse, again, my question to you is just

talking about what the ATS says.
A. I know, but I'm putting it in the context of our current discussion, I think.
Q. If you'll just focus on my question.
MR. BERNICK: And, Your Honor, at a certain point I would like the witness to know it's important to be responsive here so we can move along.
Q. (By Mr. Bernick) What the text says is that pleural plaques are a marker of dose, right?
A. That's what it says.
Q. And if you have a higher dose, you are always going to be at greater risk of asbestos-related disease. Correct?
A. Probably.
Q. But that doesn't mean that the plaques, themselves, are the beginning of a disease process. It means that they are a marker of exposure, not necessarily the beginning of a disease process. That's what this paragraph says, correct?
A. There are other parts in here that does refer to it as a disease, so I don't agree with you in that. You are taking it out of context.
Q. Let's focus on this one paragraph where they address this question and I'll draw a little chart.
Pleural disease, pleural plaques, mean that you have higher exposure. And with higher exposure, asbestos-related disease is dose driven, is it not?

A. Would you say that again?
Q. Asbestos-related disease is affected by the amount of the dose, correct?
A. Probably, although that's not even clear.
Q. So if you have a higher exposure, you may get sick from the exposure or it may turn out that you don't get sick from the exposure. Right?
A. That's true.
Q. And what this is saying is the plaque itself doesn't degenerate to give you the disease. It's simply a marker. What this paragraph says, is that the presence of pleural plaques should be interpreted as a marker for elevated risk of malignancy, which may be higher than the occupational history alone might suggest. True or not?
A. That's what the paragraph says, yes.
Q. Okay. Now, is it true that the text then goes on specifically to address progression?
A. Well, show me where we go from here on this.
Q. Are you familiar with what this document says about the studies on progression?
A. What did you say?
Q. Are you familiar with what this document says about the studies on progression?
A. I'm not sure I'm totally familiar with what it says about that, no.

Q. Let's take a look at the next paragraph and what it says will be revealed. It says, "Although pleural plaques have long been considered"--next paragraph--"inconsequential markers of asbestos exposure, studies of large cohorts have shown a significant reduction in lung function attributable to the plaques, averaging"...and they give a number, et cetera, et cetera, "even when fibrosis is absent radiographically."

"The presence of circumscribed plaques can be associated with restrictive impairment and diminished diffusing capacity on pulmonary function testing even in the absence of radiographic evidence of interstitial fibrosis."

You would agree with that, right?

A. Yes.

Q. But it then goes on to say, does it not, "Taking into account"--we're going to have to come down further, T.J., yeah.

"Taking into account the degree of interstitial fibrosis," et cetera, et cetera, "significant decrements in vital capacity have been observed."

You would agree with that, too, right?

A. Yes.

Q. But it then goes on to say, does it not--next sentence, T.J., thank you--"This has not been a consistent finding and longitudinal studies have not shown a more rapid decrement in pulmonary function in subjects with pleural plaques."

That's what it says, correct? Not a consistent

finding.
A. It does say that, yes.
Q. And what that means, according to the ATS, is that this is a matter where the science has not yet settled. Fair?
A. I think that's fair.
Q. Now I want to move from pleural plaques to talking about mesothelioma. Are you with me?
A. Yup.
Q. You talked a lot about mesothelioma and the ten cases. Is it true that if we take a look at those ten cases--I think it was actually 11. You had 11 meso cases, right? Right?
A. Yes, in that study.
Q. In that study. And for want of anything else, we'll focus on that study. You talked about it on direct, we'll talk about it now and we'll be done with that.
Meso--and you believe that they are caused by Libby community exposures. That's what you think the tie is, right?
A. As best I can tell.
Q. Well, you are here testifying as an expert. "As best as I can tell" makes people get quivery about whether that is expert testimony. So the best you can tell, let's bear this out and we'll see how far this goes.
A. Did you read the title of the paper? The paper said associated with environmental exposure; and that implies, basically, that they did have environmental exposure but there

is no way to absolutely nail down every exposure those people had in the community. You can't do it.

Q. Oh, okay, okay. I've got to erase this for a second. I'll be true to the title, and I appreciate your candor that way.

Association. Association is a very important word in medicine, is it not?

A. It is.

Q. Association is different from causation, correct?

A. True. And you know this is a situation where proof of exactly which exposure caused their mesothelioma, there is no way you are ever going to get to that.

Q. Well, there might be, there might be. Just hang on for a second. Let's just see if we can agree.

Association does not equal causation, right?

A. True.

Q. And I'm going to draw a line here. After we get done talking about association, I'm going to talk about causation and you can tell me what the significance of your title is here in a minute. I'm going to try to get this done in ten minutes, so maybe we'll finish up today.

Association. You are looking for a relationship between mesothelioma and Libby community exposure. These very small--and I don't mean to minimize them. Anybody that gets mesothelioma, it's a terrible disease, there is no question

about it, not an issue in the case. So if there's one or there's ten, nobody is minimizing. But I want to provide a perspective.

We're talking about a relatively small number of people compared to this wave that you--let me ask you something else. I'll take this piece right here.

Is it true that scientists have been able to predict the future based upon epidemiology? You predicted the future here on your direct examination, right? You said I believe there are going to be all these cases in the future. Do you remember that?

A. I believe that, based upon the information that I have. A prediction is a little bit more--

Q. I'm sorry?

A. A prediction is more rigid than that.

Q. A prediction is more rigid. Prediction suggests something more scientific?

A. Perhaps.

Q. In fact, isn't it true that scientists have been able to predict the future trend of mesothelioma, have been for years and years and years, right?

A. Well--

Q. Do you know?

A. --most of those predictions are before what we've seen in Libby here.

Q. These predictions, that's true. These predictions with respect to mesothelioma have been based on epidemiology, correct?
A. Can you show me the reports on those relative to Libby?
Q. I'm just asking you a general question, then we'll get to Libby specifically, very specifically.
Mesothelioma has been studied by epidemiologists, true or not?
A. Oh, yes.
Q. And they have been doing that going back to Dr. Selikoff, correct?
A. And before.
Q. And a man named Nicholson developed a curve saying, based upon exposures back here, I can predict how many people are going to get sick in the future. And he comes up with a bell curve, right?
A. I believe there was something like that. I don't recall all the details.
Q. Well, would you recall that this curve for mesothelioma all over the country has been verified every year for the last 10 or 15 years and adjusted?
A. And adjusted, yes.
Q. And adjusted. Is that correct?
A. I think--I think that's reasonable, but I don't know all the details.

Q. Isn't it true today that scientists, on the basis of the epidemiology, can predict, can predict what's going to happen in the future? Predict it.
A. They can, but there's a very large caveat out here, and that is we're dealing with winchite, richterite, okay? We're dealing with a different compound and we do not know.
Q. That's my whole point, is that the epidemiologists who did this work on mesothelioma, you believe they are looking at something that is different from what you are looking at in Libby, correct?
A. Yes.
Q. And at Libby, when you say that this curve is going to go, whoa, may go like this (indicating), you don't have the scientific basis for saying that that exists with respect to the science of mesothelioma. Correct?
A. No, I do not; except that the curve is still on the upswing.
Q. You don't know what the curve is, Dr. Whitehouse?
A. I don't know it. I just know it's going up.
Q. You know because it's being reported to you that there are numbers of people, but all you have is case reports. You do not have--you have no curve, you have no science. You are not an epidemiologist. You can't make predictions of the future based on science, can you?
A. No, but I'm not making predictions for how many cases

there's going to be. I'm making the prediction that there's been enough exposure over a long enough period of time and, knowing that there is a 30- to 40-year latency period, that it's going to keep going up.

Q. You don't know that.

A. Sure I do.

Q. Because the people who do the epidemiology, they actually quantify the exposures before they make predictions; and you have never quantified the exposures, correct?

A. No, but I'm talking about common sense, a physician who's in the front lines of seeing what's happening.

Q. I'm not talking only about common sense and I'm not talking about your clinical practice. I'm talking about science. Science. And you don't have the science to make a scientific prediction, do you?

A. Not to the numbers, no.

Q. Not to the numbers. You don't even have the beginnings of an epidemiological analysis to make the prediction, do you?

A. You know, I have some other numbers here that you haven't allowed me to talk about; that's one of the problems.

Q. You don't have the exposure numbers and you don't have a curve. True or not?

A. I don't have exposure numbers and I do not have a curve.

Q. Now, Libby is not so unique and different. Back in connection with the miners, there were epidemiological studies

that have been done on the miners, right?
A. That's correct.
Q. And those epidemiological studies have studied exactly the same materials: Winchite, richterite, tremolite. Exactly the same materials, correct?
A. Well, I assume so, except they didn't know what they were dealing with at the time.
Q. Well, you assume so. You had two outside extremely prestigious and authoritative epidemiologists who did epidemiological studies on the miners applying scientific rules, and their reports and their studies are so important that you cite them in your own work. Correct?
A. They were important studies because they cited the miners that had asbestosis. And then the Sullivan report additionally reported another 11 or 15.
Q. Right. With respect to--
A. But it hasn't taken very long--now, remember, to pick up between Sullivan and myself 26 cases or some number like that, there is some overlap.
Q. But you don't know until you do the analysis what those numbers even mean. You don't know. I mean, if a doctor could say, gee, I see a bunch of people coming in and that means it's a curve, there wouldn't be much work for the epidemiologist to do, would there?
A. You know, epidemiologists take care of looking at

numbers. Doctors take care of the real world.
Q. I see.
A. And I'm talking about real world experience with real world people for getting sick and for watching people die of mesothelioma.
Q. I'm not quarreling with what you do. I'm not quarreling with that perspective at all. I'm asking you about what science says.
With respect to the miners, we have science on exactly the same materials that exist in the community. And with respect to your work, you don't have that science. True?
A. I do not have the science that those epidemiologists have, that's correct.
Q. So now let's talk a little bit, you have no curve, no science and we now want to talk about these meso cases. And I'm going to come back to causation and science all in five minutes, okay? Promise. Watch the clock.
Okay, mesothelioma, 11 cases. Isn't it true that not all of those 11 cases involve people who have pure community exposure?
A. No, there were some other exposures in there, yes.
Q. Okay.
A. And that was well documented in the paper.
Q. Well, some of them were; but there are others that you call residential who it turns out do have exposures that are

not simply community exposures. Correct?
A. I'll have to go back and look at it, but I don't think that was an accurate chart.
Q. You saw it and you cited one: Ms. Gerard. What did she--how was she exposed to asbestos?
A. Working in the chiropractor's office.
Q. Didn't she also do the laundry of some of the people who came in from the mine and was exposed to take-home? Isn't that true?
A. I'm not aware of that, actually.
Q. Did you look into it?
A. No, I did not. It probably wouldn't have made a whole lot of difference anyway.
Q. But she's not a pure--if what I said is accurate, I've got a record that I think is accurate but maybe I'm wrong. But if what I said is accurate, then she is not a pure--she's not like somebody walking down the street or doing the gardening. She's got an occupational dimension to her exposure. Right?
A. You need to give me a little bit more information about that, because I do not have information about her doing clothes, on a commercial basis, of miners.
Q. Not on a commercial basis. She wasn't a laundress, but she sometimes washed--as I understand it--I'll get the reference here.
MR. BERNICK: Do I have the reference here, Barbara?

Q. (By Mr. Bernick) What about the fellow who served in the Navy? Did you look to see if people who were part of the 11 meso cases had exposures through other occupations to asbestos?
A. Yes.
Q. And wasn't there a fellow who worked--which was the fellow who was in the United States Navy?
A. There was a guy in the Navy, he was above decks.
Q. Do you know that he was always above decks?
A. As far as I know for the preponderance of the time that he was in the Navy, he was.
Q. Where did you get that information?
A. From him--or from the family. Not from him, obviously. He was dead. We got it from the family.
Q. Did the family convey that information through Mr. Heberling's law firm?
A. No, that didn't come through his law firm, I don't think. I think that came through Brad Black.
Q. Brad Black. So you personally don't have that information at all?
A. He was one of the authors of the paper and he was able to provide that information.
Q. But you are not able to tell us, as you sit here today, that under oath as based upon your own knowledge, correct?
A. Basically, the knowledge that's in that paper is a compilation of a number of people that worked on it, as are

most papers.
Q. Right. I apologize for flipping through here.
MR. BERNICK: I'm working with this document, Barb, this one right here, exposure history. Defendant's Exhibit 6595, if you could pull it up.
Q. (By Mr. Bernick) Do you see that document?
A. Right.
Q. Do you recognize that as relating to Ms. Gerard?
A. Yeah. In fact, I didn't mention about the dental stuff but I did know about it. Most of it was the chiropractor's office.
Q. Is this an exposure history that you are familiar with?
A. I'm not sure who did this. This could have come from the lawyers. It doesn't look like one of CARD Clinic's.
Q. But it's in the format that came from the lawyers?
A. Similar form, yeah, I think so. But I'm not--
MR. BERNICK: We offer it then, Your Honor.
A. I actually have it here in my data to look it up.
MR. BERNICK: We offer it, Your Honor.
A. What did you say?
MR. BERNICK: I said we offer it into evidence.
THE COURT: Any objection?
MR. MCLEAN: The only objection I have, Your Honor, is the Social Security number on the document.
MR. BERNICK: Oh, we'll redact that.

THE COURT: That will be redacted. All right, thank you. It will be admitted subject to redaction.

EXHIBITS:

(Defendants' Exhibit No. 6595 received into evidence.)

Q. (By Mr. Bernick) Do you see here where it says "assistant at chiropractic office"?

A. I do.

Q. Do you see where it says, "Chiropractic office at 410 Mineral Avenue had Grace employees as approximately 40 percent of its client base who would often come into the office wearing their dusty work clothes. The patients would change into a fabric gown which she would collect afterwards, place in a hamper and frequently take and launder at her home."

Do you see that?

A. I see that.

Q. And what that means is that she has a potential exposure to take-home dust, correct?

A. Well, yeah. It's the same as the exposure that she had at the office. It's identical. It's just that she took them with her. I don't see that there's any difference.

Q. I'm not suggesting that your testimony or your description is wrong. I'm saying that there was an element of her office work, that meant that she was different from other people who were simply part of the community because she had exposure to miners who had take-home dust. Correct?

A. In fact, that's been identified, too, that's where they came from.
Q. Right. So she is not a pure--we have all kinds of people who were part of the family or who had other occupations who were exposed to miners' dust, correct?
A. Sure.
Q. That's not the same thing as being exposed in the Libby community by breathing the air or working in your garden. Correct?
A. I guess not, but it still falls under the category of a community exposure doing her usual work.
Q. But isn't it true that the ATSDR, which is part of the Center for Disease Control, specifically defined community exposure to exclude miners and people who in their homes were exposed to take-home dust. True or not? If you follow the ATSDR--
A. I'll take your word for it.
Q. If we follow the ATSDR's approach, their definition, isn't it true that Ms. Gerard is not a community exposure case. She has an occupational exposure. True?
A. That does not fall into the category of an occupational exposure, I'm sorry. An occupational exposure is a miner or some place that works directly with the asbestos. This is basically no different than her working in the chiropractor's office.

Q. That is not what the--that's not what Dr. Middleton from the ATSDR told you in 2002, is it?

When you were working on the progression--when you were working on the ATSDR pilot study, he took your list of 22 people who you say were exposed in the community and he chopped it down by eight people for many reasons, including that he thought that a community exposure should be confined to people who were exposed not to mine dust, but to dust in the community. True?

A. I'll take your word for it. I can't remember. I actually don't even remember how he defined it in that paper.

Q. I've now overstayed my welcome by two minutes, but I've got one last set of questions to ask you.

I want to go back to causation and ask you whether it is true that in order to make a statement about causation rather than association, causation rather than association, in the area of asbestos you need epidemiological studies. True or not?

A. I think it's probably reasonable; although, epidemiology in dealing with a group of patients is basically looking at the patients, what their exposures were as best they can tell. It doesn't necessarily imply that you know what the dose is that they actually got.

Q. That's really not--I mean, Nicholson's work, the studies that were done on the miners by Amandus and McDonald, they all

provided a quantitative statement regarding dose, correct? You can't--

A. I don't know about Nicholson, but I do about the other one.

Q. They quantify dose because you can't find dose response unless you have dose, correct?

A. That's true. No, there's no question that that's true.

Q. Okay.

A. On the other hand, though, you could still have causation without knowing exactly what the dose was. That's like you have a strep throat epidemic. You don't have quantitation of how much strep the guy got when he got the strep throat.

Q. That's not--those are the old Cook's postulate. That's an infection. When it comes to environmental exposures, Cook's postulate didn't work. And the Surgeon General in 1964, in connection with smoking, said that in order to get causation, you need epidemiological; that is, statistical evidence. True or not?

A. I think you need statistical evidence, yes.

Q. The statistical evidence in the form of properly performed epidemiological studies, otherwise you can't say cause. True?

A. No, I don't agree with you in that at all.

Q. Are you familiar with the Bradford Hill postulate,

criteria? You don't know that Bradford Hill set the standard for causation when it comes to environmental exposures?

A. I'm not familiar with that. I'm a much more practical person. You know, I see 11 cases of mesothelioma come out of Libby, there is a lot of exposure there, that's causation as far as I'm concerned. And from a practice standpoint from a physician, that's what you need, and that's the sort of thing that physicians rely on, basically.

Q. Isn't it true that the ATS, the American Thoracic Society, calls what you do case reports and case series? That's what it's called, right?

A. I'm not sure how they would have called them. Probably a case reports, probably a case series, right.

Q. It's a case series. Isn't it true the American Thoracic Society puts case series on the lowest rung of the totem pole of science? The lowest rung.

A. You know--

Q. The diagnosis is important, but scientifically case reports and case series are the lowest rung of scientific research. True or not?

A. No, I don't believe that's true or not. I really doubt it greatly.

Q. Well, I don't have time to show you the document. The jury will see it on another occasion.

You don't think you need epidemiologically to find

causation scientifically; is that your testimony?
A. Listen, there is descriptive epidemiology that describes what is going on, writes it up as such and it is epidemiology.
Q. I'm going to finish up. I'm going to ask you about one epidemiological study that you haven't mentioned.
A. What's that?
Q. There is an epidemiological study, is there not, that specifically addresses, specifically addresses whether all the meso, lung cancer, asbestosis--there is a study that addresses this very question, which is whether there is an excess of mortality for people in Libby from these diseases than would be expected in the population in Montana. Correct? There is an epidemiological study on the very issue of community disease. True?
A. I'm not sure I understand your question.
Q. Isn't it true that there is an epidemiological study that has been done that specifically addresses the question of whether people in Libby are getting--in the community, not the workers, not their families--but community people, people like the Parkers.
Isn't there an epidemiological study that specifically addresses scientifically whether there is an excess of deaths and disease in Libby within the community that makes it different from the State of Montana generally? Isn't there such a study?

A. Would you show me the study?
Q. You aren't aware of the ATSDR mortality study?
A. I am aware of that. I'm aware of an awful lot of studies that have been done about Libby and also related to the relative mortality rate for mesothelioma, which is basically off the wall compared with any place else in the country.
Q. It's off the wall if you include the miners. It's off the wall--
A. No, it's off the wall if you do community exposures. It's still the highest in the country for environmental exposure.
Q. Isn't it true this study specifically looked to answer that question, to see whether people who were in the community--once you excluded the miners and excluded their families, it specifically looked to see whether people in the community had an excess risk of mortality from these diseases and found no statistically significant difference?
A. I want to see the study.
Q. You were shown it in your deposition. You don't remember that?
A. I don't have it right now, I don't believe, here. If you have it, I would be happy to review it with you. I want to see the study.
Q. I do have it and I'll show it to you. I'm out of time, is my problem, and I want to be able to get you done here. So

I'll show you Exhibit 5--6449.

Take a look at that. Do you recall that there was a mortality study done by the ATSDR? That's a federal research agency.

A. Oh, that was the one that was through '98, no wonder. You didn't say that.

Q. From '79 to '98.

A. You didn't say that.

Q. '79 to '98, done in 2002, right?

A. Right.

Q. Let me make sure. Libby community exposures go all the way back as long as the mine has been operating, right?

A. You know what? There is huge holes in this study that I know of.

Q. Well, I'm sure that you--

A. I know there are deaths certificates only if the diagnosis of asbestosis was made. It didn't include best evidence at all, which is basically the way those studies should be done. Because the death certificates in Libby are awful. We know it.

Q. They are awful. So you reread the death certificates and sometimes you make entries that are not on the death certificates. Right?

A. No, I don't do that. I've looked at--I've done a lot of death certificate review but it's always been associated with

chart review, for the most part.

Q. For an epidemiological study the ATSDR is one of the country's foremost expert federal health organizations when it comes to doing epidemiological research, correct? Is it or is it not?

A. Maybe yes, maybe no. Based on this study, I would say no.

Q. But just answer my question, please.

The ATSDR is part of the national health organization, and they were brought in specifically in Libby and they did a mortality study that specifically examined the question of whether there were excess disease--excess deaths from these diseases among people in the Libby community. Correct?

A. Yes. And may I quote from this now since--

Q. I'm going to ask you a question that's very focused, because I want to turn it over to the Government so they can conduct their own examination.

If we take a look at the tabbed page, do we see that an analysis was done that made a statistical comparison--if you flip all the way, I'm sorry.

Do you see that the report looked at, first of all, the rates of mortality for the community compared to expectation if the miners and everybody else was included, and then did the same analysis backing out the miners in order to

focus on people in the community. Do you see that?
A. Let me see where we are.
Q. Take a look at Table 8.
A. Okay, I see the tables. Go on.
MR. BERNICK: We offer it, Your Honor, as a limited treatise supporting an expert opinion, but not as admissible evidence on its own.
THE COURT: Any objection?
MR. MCLEAN: No, Your Honor.
THE COURT: It's received. It's 6449 is received.
EXHIBITS:
(Defendants' Exhibit No. 6449 received into evidence.)
Q. (By Mr. Bernick) Do you see the Table 8 is combined respiratory mortality excluding former workers in Central Lincoln County using the Montana and U.S. population references 1979 to 1988. Do you see that?
A. Yes.
Q. Let's take a look at overall mortality, but we're going to exclude, we're going to exclude the former workers. Do you see that if you take a look at the left-hand side you've got a bunch of diseases: Lung cancer, mesothelioma, COPD, asbestosis, other respiratory and combined causes. Do you see that?
A. Right.
Q. And the question is, can you find a statistically

significant difference between what would be expected given the data in Montana and what is expected in the U.S. versus what is observed? I want to erase that again.

You have what's expected, Montana based, U.S. based and what's observed. And they make a comparison to see is there a statistically significant difference between what is expected based upon Montana generally and the U.S. generally, and what is observed in Libby. Do you see that?

A. I do see that.

Q. Do you see how in the last column the results are given in the parentheses--the results are given like .95, and then there is a confidence interval. Correct?

A. Yeah.

Q. Isn't it true if the confidence interval includes 1, that if the range goes below and above 1, it is not statistically significant?

A. If it goes below 1 it's not significant.

Q. Didn't you admit in your deposition, Dr. Whitehouse, that this data in this study does not show a statistically significant increase in mortality among community members in Libby for asbestos-related illness? Isn't that accurate? That is what that table shows.

A. Well, there's two very large--I'm sorry. There are two very large problems with this study.

Q. I'm going to give your counsel an opportunity to go over

that.
A. Okay.
Q. This study, on the face of it, ATSDR finds no statistically significant increase. True?
A. That's true.
Q. And ATSDR published this or circulated this as their final review, their final epidemiological review, and they have never retracted, they have never corrected it, they have never said it's been superseded. Correct?
A. I don't know. I've never seen anything like that, no.
MR. BERNICK: I have no further questions, Your Honor.
THE COURT: Anybody else?
Mr. McLean, redirect.
Perhaps you can get the boards down.
MR. MCLEAN: Beth, do you still have 6449, that last ATSDR study? Could you just go to the page we had on the screen there, the last one with the table. The blue circle.

REDIRECT EXAMINATION

BY MR. MCLEAN:
Q. Dr. Whitehouse, do you know why there's no indication here or statistical analysis for the mesothelioma category? Do you have any idea?
A. I've heard a number of things--
MR. BERNICK: Objection. I have no problem with him

saying yes or no, but otherwise there is a lack of foundation.

THE COURT: You can answer the question yes or no.

A. Will you repeat the question?

Q. (By Mr. McLean) Do you have any idea why there is no finding here by ATSDR concerning the mesothelioma category?

MR. BERNICK: I believe there is no foundation for that. Objection.

A. No.

THE COURT: He said no.

Q. (By Mr. McLean) No idea, right?

A. Well, I do have an idea if I'm allowed to answer the question.

THE COURT: You are not.

Q. (By Mr. McLean) How about the asbestosis finding of 5? You were responding to Mr. Bernick's questions about if this confidence interval is under 1, then it is statistically significant, right?

A. It is not statistically significant.

Q. It is not. What about that 5? What does that mean statistically?

A. Well, I can't really tell you all this unless you allow me to tell you about all this in toto, because there's huge errors in this that make it very incomplete and really a wrong study.

Q. Well, let's go to that then. You did tell Mr. Bernick

that with respect to this study you were aware of some problems. I think you mentioned death certificate issues.

A. This stuff was done with--

MR. BERNICK: I'm sorry. There needs to be a foundation for this witness--

THE COURT: Just object on the grounds of foundation.

MR. BERNICK: I object on the grounds of foundation.

THE COURT: Sustained.

Q. (By Mr. McLean) What's the basis for your statement that there are problems with this study?

A. Well, the first is that I know there are 31 deaths in Libby from mesothelioma, not all by 1998, but there were probably 25 by then, which obviously have not been reported on this.

MR. BERNICK: Objection. There is no foundation for that. This is a community study, not workers.

THE COURT: Yes. Ladies and gentlemen, we're in an area where there may be differing views but there is a requirement under the law of a certain level of expertise. I don't think there is any foundation established. There may be a difference of opinion, but not foundation. So I'm sustaining the objection.

Q. (By Mr. McLean) Aside from this study that Mr. Bernick was asking you about, you mentioned that there were issues with

death certificates in Libby. What were you talking about --
A. The majority--
Q. -- based on your review?
A. Based on my reviews in the past, is that a large number of the death certificates for people that died of asbestosis, known asbestosis were coded out as COPD. And that was very common in Libby for many years. And so who knows how many of those 73 on here are really asbestosis deaths.
MR. BERNICK: Objection. Move to strike the comment with respect to this document.
THE COURT: The first part of his answer you can consider. The second part you can disregard and it's stricken from the record.
Q. (By Mr. McLean) And Mr. Bernick was asking you about an epidemiological study that excluded workers or family members, right?
A. Yes.
Q. And he was categorizing everybody else as a community exposure, right?
A. Or a miner.
Q. And I think you were starting to say that family members had--what were you saying about family members with respect to occupational exposures?
A. Are you talking about Carol Gerard specifically?
Q. Yes.

A. Well, basically, that would have been considered, I believe, basically a community exposure. I think everybody now does consider it that way. I don't know that ATSDR might not have considered it occupational; but, you know, if it was occupational, she got it at the chiropractor's office as well. It's sort of all one and the same. It doesn't make sense to separate it out.

Q. And I think there was a defense exhibit up here that had Ms. Gerard's exposure history. I don't have the number for that one. I don't know if one was even assigned, but if we could put that back up there, please.

THE COURT: It's 6595.

MR. BERNICK: Yeah, 6595.

Q. (By Mr. McLean) And so we have Defendants' Exhibit 6595 up here and it relates, evidently, to Carol Gerard. And it says here that Grace employees would often come into the office wearing their dusty work clothes. Do you see that?

A. That's correct.

Q. Does that sound to you like Grace employees regularly left the workplace with dust on their clothes?

MR. BERNICK: Objection, relevance and scope.

THE COURT: Well, you may answer it.

But, ladies and gentlemen, look at the dates on this. It has nothing to do with any exposure that is an issue in the criminal case. It's beyond even when the Indictment,

let alone the statute of limitations, let alone when the law was enacted.

You may answer the question.

A. The answer would be yes, that was a frequent occurrence.

Q. (By Mr. McLean) And we're also looking at '74 through '83, right?

A. Same.

Q. And there is an indication here that--and Mr. Bernick was asking you about her work cleaning Grace employees' clothes, right?

A. Well, actually not their clothes. She was cleaning the fabric gowns that they had the guys get into so they could do their chiropractic manipulation.

Q. You told Mr. Bernick that, in your opinion, you can determine causation without dose information. Right?

A. True.

MR. BERNICK: Objection, leading.

THE COURT: It's overruled.

A. True.

Q. (By Mr. McLean) Of all the patients that you have examined from Libby, did you ever have a number, a dose, that you were able to look at and rely on?

A. For any individual? No.

Q. They weren't running around with personal air samples on while they were going about their daily activities?

MR. BERNICK: Objection to the form.

THE COURT: Sustained.

Q. (By Mr. McLean) Why is it that it's your opinion that you don't need the specific dose of asbestos to determine causation of one of your patients?

MR. BERNICK: If all he's talking about is the clinical diagnosis--

THE COURT: Yes, his answer is limited to his clinical diagnosis.

Q. (By Mr. McLean) One of your patients.

A. Basically what is, is. They have asbestosis, or pleural asbestosis or asbestosis pleural disease, however you want to call it, and they were around contaminated material in which they were exposed to asbestos. And there is no other reasonable explanation for what they have.

Q. I think in response to one of Mr. Bernick's questions you stated "I deal in the real world with real people." Do you recall that testimony?

A. I did.

Q. And in that world is there any way to measure dose for your patients?

MR. BERNICK: Objection, lack of foundation. There is an expert to address that.

THE COURT: Overruled. That's a yes-or-no answer.

A. Not really, unless--nowadays there is not because things

are very different than when they were exposed, so there is no way to know.

MR. BERNICK: Move to strike. I'd ask for a limiting instruction. The witness is here as an expert.

THE COURT: The objection is overruled.

Q. (By Mr. McLean) Mr. Bernick asked you about whether you had any exposure numbers and whether you had a curve. He had a curve drawn over here. You don't have a curve, right?

A. No, I don't have a curve.

Q. I think--what do you have?

A. My experience of watching people die from mesothelioma and asbestosis and the numbers, of watching the numbers.

Q. Mr. Bernick pointed out to you that really it's a relatively small number of mesotheliomas in this wave of people that you were seeing as patients, right? That was one of his questions.

A. Well, I don't consider it relatively small.

Q. That's what I was going to ask you.

A. I think it's enormous. I mean, that many mesotheliomas is way outside the limits of anything else reported in this country.

MR. BERNICK: Objection, lack of foundation. Move to strike.

THE COURT: Sustained. The answer is stricken.

Q. (By Mr. McLean) So you noted 11, and this is from people

who had lived and worked in Lincoln County, Montana.
A. Yes.
Q. Mr. Bernick was asking you questions about the ATS standards. And I would like to bring Defense Exhibit 6015.15 back up and, if we could, focus and enlarge this paragraph that Mr. Bernick was asking you questions about.
It says, "The presence of plaques is associated with a greater risk of mesothelioma and of lung cancer compared with subjects with comparable histories of asbestos exposure who do not have plaques." Do you see that there?
A. I do.
Q. You don't disagree with that, do you?
A. No, I don't disagree with it. It's probably true.
Q. "This is thought to be due to greater exposure or retained body burden, not malignant degeneration."
What is retained body burden?
A. Well, when you are referring to chrysotile, which much of this article refers to, a lot of the chrysotile can be expelled from the lungs.
This fiber is thought not to be easily expelled from the lungs; so the body burden is how much of it remains in the lungs, the total burden of asbestos fibers that they have.
Q. And is that what you were describing as every time a person is exposed, it stays in their body?
A. Yeah, for all intents and purposes, yes.

Q. So that's what's meant by retained body burden?
A. Yes.
Q. And it says, "Therefore, the presence of pleural plaques should be interpreted as a marker for elevated risk of malignancy, which may be higher than the occupational history alone might suggest."
Elevated risk, what does that mean?
A. Well, that means that these people have a significantly higher risk than a general population of developing cancer, be it smokers, ex-smokers or nonsmokers. And we take means to screen people that are high risk in that clinic.
Q. You agreed with Mr. Bernick that this standard, the ATS standard, does not address whether pleural plaques are a progressive pleural disease. You agree with that, it doesn't state that here, right?
MR. BERNICK: Objection to the form of the question, it also miscites the testimony.
THE COURT: Overruled.
A. Before I totally answer that I would want to reread it; but I don't think there is anything in there that relates to progression of plaques to other disease.
Q. (By Mr. McLean) Does it list plaques as a disease, though?
A. Yeah, it does.
Q. Have you presented some of your findings about the

progression of plaques to other doctors at conferences?
A. Yes.
Q. How often have you been doing that?
A. Oh, I don't know. I've given a lot of lectures over the years, over the last eight years or so, and I have a number of times presented rapid progression materials. I presented them at Mount Sinai when I gave a--as part of a conference given there about 2, 3 years ago. And actually am preparing a paper concerning that to submit.
Q. Mr. Bernick was asking you about asbestosis and the definition of asbestosis, and you were trying to, I think, describe something that Selikoff described. What was that?
A. This is sort of a multi-part answer. Selikoff would always call pleural disease pleural asbestosis. The people in Libby tend to pick up the term asbestosis by themselves. I think it's a lot less complicated than pleural--asbestos-related pleural disease.

And basically using the term asbestosis, I think they are probably right. If you believe that plaque, interstitial disease to death is all in a continuum, then calling it all asbestosis makes all kinds of sense.

MR. BERNICK: Objection, move to strike, lack of foundation.

THE COURT: Overruled.

Q. (By Mr. McLean) Mr. Bernick asked you questions about

your diagnosis of Wendy Challinor's asbestos-related disease. Can you just remind us what your diagnosis was?

A. She has asbestosis. She has interstitial disease and she also has pleural plaquing present.

Q. And then he asked you questions and showed you Defense Exhibit 6206, which was what you call a read by Dr. Lynch, right?

A. Yes.

Q. And we have that right here in front of you.

A. Yes.

Q. And if we could just focus on that segment, please. And you had some discussion with Mr. Bernick about the words radiologists use to describe their findings, right?

A. Yes.

Q. And you were describing that you actually consider many more factors than just the x-ray or just the CT scan to make your diagnosis. Right?

A. That's correct.

Q. What are the factors that you consider?

A. Take into account the exposure history. The physical exam in particular. The symptoms, if they have shortness of breath. In fact, in Wendy Challinor's case she has rales which are characteristic of interstitial disease. The x-ray, pulmonary function studies. All of that goes into the diagnostic scheme that you do.

Q. And maybe the jury doesn't know this, but could you describe the difference in the medical practice that you've described that you conduct and what a radiologist does?

A. A radiologist looks at films that an x-ray tech has taken and reads them, okay? Radiologists are very--are very important people, but they also happen to be the general practitioner of x-ray.

And, in general, the pulmonary docs tend to be much more specialized as far as reading x-rays, just like an orthopedist is looking at bone x-rays or a neurosurgeon looking at brain CTs.

Q. Do radiologists commonly put hands on a patient, sit down and talk with them and put the stethoscope on their chest?

A. Nope.

MR. BERNICK: Objection, relevance.

THE COURT: Overruled.

A. No.

Q. (By Mr. McLean) Do they ever have a patient in their office where they talk with them about their exposure histories?

THE COURT: Now we're getting close to being on the edge of relevance. He's not a radiologist. He said that. You've not laid the foundation and we're not going there.

Q. (By Mr. McLean) You mentioned with respect to Ms. Challinor's x-ray and Dr. Lynch's read, he says it may be

related to cigarette smoking. Do you see that there?
A. Yes. Yes.
Q. And you mentioned something and I would like you to tell us what you meant when you said cigarette smoking doesn't make this kind of a picture, or words to that effect.
A. I've never seen cigarette smoking look anything like this, remotely like this.
Q. Like Wendy's x-rays?
A. Like Wendy's x-rays.
Q. What are you telling us? Tell us more about your description.
A. Cigarette smoking does cause some broad-based scarring in the lung bases. To my knowledge, it does not cause a ground glass appearance, which he described above which is what she has. There are things that cause ground glass appearances, but I'm not even sure I would quite describe it that way.

But, you know, he's a good radiologist. There are things that he might have seen somewhere else recently and he brings that up or something like that, you know. I don't think you--you have to look at the interpretation as a whole and just ignore that which doesn't fit.
Q. And this is--is this--when you get an x-ray or a CT like the one from Dr. Lynch or Dr. Becker, is that what you base your diagnosis on or is there more to it?
A. Oh, no. I take into account what they see. And

sometimes these guys see things that I don't see and sometimes I'll go over and talk to Becker--I haven't for a while--about x-rays or called him about something because he's seen something I haven't and we discussed it.

So, no, there is a real give and take with radiology and pulmonary disease. And I think that, and probably can verify that, that I'm a little bit more sensitive towards picking up pleural disease than the majority of radiologists because I've looked at so much of it and have for so many years.

Q. Mr. Bernick asked you about your diagnosis of Mel Parker and he asked you if you know the exact fiber level Mel Parker had been exposed to, and I think you said "I don't know."

A. I don't know.

Q. Do you need to know the exact fiber count in order to make your diagnosis?

MR. BERNICK: Objection, cumulative.

THE COURT: Sustained.

Q. (By Mr. McLean) You stated that in response to one of Mr. Bernick's questions that B-reader standards are an epidemiological tool.

A. That's correct.

Q. What did you mean by that?

A. Well, the B-reader standards were--

MR. BERNICK: Objection, lack of foundation.

THE COURT: Overruled.

A. The B-reader program was originally started in order to track coal miners in West Virginia as far as severity of their disease and for epidemiological purposes. And that's the published reason for B-readers by the International Labor Organization, is concerning epidemiology, not concerning diagnosis.

MR. MCLEAN: Your Honor, I think one of our jurors might be having some difficulty--

JUROR: I'm all right.

THE COURT: Are you going to be much longer?

MR. MCLEAN: No, sir.

THE COURT: All right.

Q. (By Mr. McLean) Are those B-reader standards a diagnostic tool that you utilize?

A. No. I look at the B-readers, I look at Lynch's and Newell's in Denver and I look and make sure I haven't missed anything. That's how I use them.

MR. MCLEAN: That's all I have, Your Honor. Thank you.

THE COURT: You can step down, Doctor. You are released from your subpoena. Please don't discuss your testimony with anybody until the case has concluded.

Ladies and gentlemen, I'm going to try and answer a couple of questions for you before we take the afternoon break.

There was a request--two requests, actually. The first one had to do with the Indictment that I read at the beginning of the trial and whether or not you could have a copy of that. You will get a version of that when you get all of the instructions at the end of the case.

I realize that it may--you know, when I read those things at the beginning of the case, it's a lot like going to college where you don't know where you are enrolled, you don't know what classes you are taking, and you come in and they give you a test. We're trying to avoid that, but the Indictment isn't evidence and there isn't any way in a criminal case where you can get the Indictment, which is the charge, and then a complete detailed response to what's in the charge. And so I read it at the beginning with the position of the Defendants. I will give it to you at the end and I apologize, but that's just the reasoning.

Secondly, the chart that I did give you in an effort to help you, a question of whether or not you could discuss that among yourselves. And I have visited with everybody involved and I think that gets close to the prohibition against talking about the case. And so I apologize again for that. I had in mind that it would be helpful, not cause confusion for everybody and I hope it isn't causing confusion.

We're going to break and we'll come back at 9 o'clock on Monday morning. Now, we're going to go the next

three weeks four days each week, and so I'm going to read the instruction to you. I know a couple of you have already given me information that is responsive to this and I am deeply appreciative of that and your reaction to any contacts that you may have had.

You are not to discuss this case with anyone, including your fellow jurors, members of your family, people involved in the trial or anyone else, nor are you allowed to permit others to discuss the case with you.

If anyone approaches you and tries to talk to you about the case, as you have done, please let me know about that immediately.

Do not read any news stories or articles or listen to any radio or television reports about the case or about anyone who has anything to do with it. Do not do any research, such as consulting dictionaries, searching the Internet or using other reference materials, and please do not make any investigation about the case on your own. As I have mentioned repeatedly, that would be catastrophic for all of us.

If you need to communicate with me, you may simply give a signed note, as you have done, to the clerk or to the bailiff and they will get that to me.

And, finally, it is extremely important that you not make up your mind about what the verdict should be until after you've gone to the jury room to decide the case and you and

your fellow jurors will have discussed the evidence. Keep an open mind until then.

And I have discussed a process with the lawyers. I mentioned it at the beginning of the case and perhaps, if everybody elects to proceed with some sort of interim summary, perhaps at the end of the next week we may be in a position. And that may answer some of the questions about sort of what the lawyers at least at this point are thinking where all of this fits in with the proof.

Again, that would not be a procedure that is ordinarily followed, but if counsel are amenable to it, then perhaps at the end of next week we'll take just a brief time to have them sort of summarize. If they elect not to do it, it shouldn't be held against anybody. Just rack it up to a bad idea on the part of me.

Have a good weekend and we'll see you Monday morning at 9 o'clock. Please stand. If you would, leave your notes in the jury room.

(Whereupon, the jury leaves the courtroom.)

THE COURT: Please be seated. Mr. McLean, any issues that you want to take up?

MR. MCLEAN: Mr. Cassidy is going to take his turn at that, Your Honor.

THE COURT: All right. Mr. Cassidy.

MR. CASSIDY: Two very brief issues, Your Honor. I

can't remember if it was earlier today or yesterday, but you reserved ruling on our Exhibit 628G and I suggested a possible redaction of that exhibit.

THE COURT: I haven't ruled on it and I did see my notes this morning. It came up this morning, I think, but it came up yesterday also.

MR. CASSIDY: I have a copy if you want to look at our proposed redaction. We redacted everything except for the paragraph that involves Mr. Bernick's questions, and the signature on the third page.

THE COURT: Right. Has counsel for the defendants all looked at it?

MR. BERNICK: I just got it.

THE COURT: What else?

MR. CASSIDY: The second issue was--Mr. Lancaster I don't believe is still here today.

THE COURT: He's here.

MR. CASSIDY: Okay, sorry, there you are. There were several times today where there were objections and it wasn't just relevance, it was relevance and outside the time frame.

As Your Honor knows, there are some legal disagreements about the importance of the different time frames here. We would just simply ask that the objections be limited to a number of the Rule of Evidence or a relevance objection,

and that extra "outside the time frame" not need be said.

THE COURT: Well, I think I explained my reasoning on those rulings, the ones that seemed to be pertinent to me, and I think it was primarily the 403.

MR. CASSIDY: We have no quarrel with Your Honor's explanation. The jury keeps hearing "outside the time frame" and we have--I think it's argumentative, is what I think it is.

THE COURT: All right. We'll ask him to--the objections have been helpful when they are--okay.

MR. BERNICK: On that score, we're trying to do our best to adhere to Your Honor's instructions that way. And I think probably, just speaking for myself, there are times when 402 encompasses so many things. And, I mean, my presupposition, maybe it's wrong, is that sometimes there is just a little thing in the document or whatever that it might help on, and that is the spirit in which it is done. It's not done with a view to communicate to the jury. It is done with a view to try to identify within the broad ambit of our relevance issues, what the relevance issue is. If it's not appropriate, we'll cease and desist.

THE COURT: No, I think it's just a comment that they made and I think it's taken in the spirit of professionalism. And I don't have any trouble--I didn't understand it to be a comment. I thought it was trying to relate to the objection. But--

MR. BERNICK: That's fine. And part of the reason is that I understand the Government wants to preserve its record, but, literally, Your Honor's rulings are acknowledged but the questioning is undeterred. I mean, they are repeatedly asking questions that require us to stand up and object. Again, I'm not taking issue with that, but that's part of what drives it. I have nothing further to say on that subject and we'll try to continue to be within the four corners of Your Honor's instruction.

With respect to Exhibit 628G. A, it looks terrible. It looks like there's some big secret out there. And B, the problem with this document is this paragraph. We have a formal 104(e) request that gives us very specific instructions. Those instructions were never withdrawn. We responded in our 104(e) response, you know, chapter and verse in very specific detail to those instructions, and our answer and our response comported with those instructions as best we could.

What they are suggesting by this document is by having written us a letter that's really all about an extension of time, that somehow they formally altered their 104(e) request and they never did that. So when it says, "However, EPA provides that extension based upon our commitment to insure that the answers are fully responsive to the questions, whether based on personal"--that is not a change in instruction. That is the softest, most indirect kind of "maybe we'll let you get

away with it."

This jury cannot interpret what this document means. They have to have a lawyer on the stand that explains how discovery responses or 104(e) responses are crafted, and then we have to have factual testimony about whether this is really an accurate recitation of the conversation that took place. That's absurd.

If they wanted--they are prosecuting us for obstruction based upon the 104(e) request. It's what the Indictment says. They are not saying it on the basis of--they are not charging on the basis of the 104(e) request as modified by a January 28, 2000 letter to Mr. Lund. This is not the--this is not proper, particularly in a criminal context where so much rides upon the exact request with respect to which we are alleged to have engaged in obstruction.

So this is a 402, 403 problem and we strenuously object to the admission of 628G even as redacted.

THE COURT: All right. Anybody else have anything that they need to raise? Very good. I'll see all of you on Monday morning at 9 o'clock. We'll be in recess.

(Whereupon, court was in recess at 5:08 p.m.)

C E R T I F I C A T E

STATE OF MONTANA)
) ss.
COUNTY OF MISSOULA)

I, Julie M. Lake, RDR, RMR, CRR, Freelance Court Reporter for the State of Montana, residing in Missoula, Montana, do hereby certify:

That I was duly authorized to and did report the proceedings of the jury trial in the *United States of America vs. W.R. Grace, et al.,* CR 05-07-M-DWM, Volume 7, Afternoon Session.

That the foregoing pages of this transcript constitute a true and accurate computer-aided transcription of my stenotype notes of the court proceedings.

IN WITNESS WHEREOF, I have hereunto set my hand on this the 4th day of March, 2009.

s/s Julie M. Lake
Julie M. Lake, RMR, RDR, CRR
Freelance Court Reporter
State of Montana, residing in
Missoula, Montana.